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ABSTRACT

This book presents results of a three-year study of children's living and play areas in three cities (one large, one medium, and one small) in Yugoslavia. A total of 1,200 families living in 240 buildings in six developments built between 1961 and 1971 were included in the study. A variety of facilities were evaluated for both formal and informal play areas, including consideration of: (1) the plan of the site, design of buildings, and use of apartment space; (2) the arrangement of neighborhood day care centers; and (3) the location, inventory, and adequacy of nearby schools, playgrounds, and/or play field facilities for serving children 3-14 years of age. The multidisciplinary research program focused on the functionally and safety of these informal living and formal play areas, their suitability for the intended age group, their influence on behavior and on physical and psychological health and development and the parents' and children's problems and satisfactions. Questionnaires, inventories, and on-site observations provided the data. Recommendations are included, as well as descriptions of the research instruments used. (ED)

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CHILDREN'S LIVING AND PLAY AREAS IN THE LOCAL COMMUNITY

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YUGOSLAV INSTITUTE FOR
TOWN PLANNING AND HOUSING

CHILDREN'S LIVING AND PLAY AREAS IN THE LOCAL COMMUNITY

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FOREWORD

This volume reports research on *Children's Living and Play Areas in the Local Community* contracted under the Special Foreign Currencies Program Project No. 02-200-3 by the Bureau of Community Environmental Management, now the Environmental Health Services Division, Bureau of State Services, Center for Disease Control, PHS, DHEW, Atlanta, Georgia 30333.

The Yugoslav Institute for Town Planning and Housing herein presents a constructive study of the subject in three cities -- large, medium, small -- in 240 buildings of six developments built between 1961 and 1971. That date limitation assured that the study would have relevance to new areas in both Yugoslavia and the United States. It is a subject in which recreation and urban planners need informed guidelines, and the health and safety professions need researched criteria. Therefore, it is hoped that a similar research project in scope and content will be undertaken in the U.S.A. and allow cross-national comparison.

The purpose of this project was to evaluate both for formal and informal play areas: the plan of the site, design of the buildings, and the use of apartment space; and the arrangement of the neighborhood day-care center, and location, inventory and adequacy of nearby schools, playgrounds, and/or play field facilities for serving the children from 3-14 years of age. The functionality and safety of these informal living and formal play areas, their suitability for the intended age group, the parental and children's problems and satisfactions, their influence on behavior and on physical and psychological health and development, were the focus of the multidisciplinary research program and instruments developed.

Two neighborhoods were sampled in each city, one with a population more than 50 percent blue-collar and one more than 50 percent white-collar. The size of the resulting stratified random sample was 1,200 families. The floors above the eighth in the high-rise buildings were under represented; 18 percent of apartments selected were on the ground floor, 59 percent on the next four floors. As a result, the sample size and scope of this project, which is larger than any other we know of here or abroad, commends it to the attention of the health, recreation, and environmental design professions.

The Environmental Health Services Division is grateful to Morris Mitzner, Ph.D., Professor of Social Sciences, Georgia Institute of Technology, Atlanta, Georgia, for his repeated consultations with the Yugoslavia Institute's staff; he materially helped the development of the research design and instruments. It also acknowledges the PHS staff services of Delmar W. Ruthig, M.D., for pediatric consultation, and of William C. Loring, Ph.D., project officer, for advising on the development of the research design and monitoring its accomplishment.

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TO THE READER

This ivestigation was begun in mid-1971 according to a project design that envisioned a three-year timetable for gathering field data, processing and analyzing the data, and drawing the conclusions.

the long deadline of the investigation had its advantages and disadvantages. On the one hand it permitted us to ask our respondents to provide data on many areas that directly or indirectly impinged upon the subject of the investigation. Since we always worked with the same research subjects, a task of this magnitude had to be extended in time, through a number of successive steps and not executed all at once. Our long deadline permitted us to pretest each of our instruments and eliminate all evident shortcomings before using the instruments to gather the final data.

On the other hand the relatively large number of respondents did not permit us to utilize the long deadline to test the quantity and quality of change in each research subject. We are certain that in childhood, the most dynamic stage of development, three years encompasses basic changes in personality development, as when the carefree attitude of childhood ceases with the first school obligations or emotiveness gives way to increasing rationality. It was not possible to study such changes in individual cases or carry out comparisons of data between the beginning and end of the research period.

The size of the sample was such that our analysis was necessarily a quantitative rather than a qualitative one.

During the three years´work on this project, not only the personalities of the interviewed children but other factors changed. For example, at the outset of the investigation period, the city of Titovo Užice had only one daycare center, which had neither the facilities nor the space to meet the needs of the city as a whole. In the meantime, however, a large, well-equipped center has been built but could not be included in the study.

During the three-year period the size of our sample fell off. From the time of the first administering of the first questionnaire (the parents´questionnaire) to the completion of the final instrument (the health records), the sample fell by nearly a third (from 1201 to 826). There was no way of following through on children who passed the upper age limit of 14 years.

For these reasons we suggest that the reader take this study as a picture of a point in time rather than as an attempt to overcome the inadequacies of childrens´play and game facilities.

In working out the methodology and research instruments and particularly in processing the data, the investigators wanted to make consistent use of a multidisciplinary approach so that the final material would comprise a meaningful whole rather than a mere aggregate of isolated professional contributions. Although the members of the research team shared a high degree of agreement on certain major problems, the reader of the study will easily be able to judge whether we succeeded in creating a meaningful whole. At this point in time it seems to us that the study slighted the psychological and health aspects.

This study cannot easily be categorized as purely fundamental, applied, or action research. It encompasses all of these to some degree, but action research the least (which may perhaps be related to the nature of a long-term study).

It would be valuable and beneficial if the first significant study to succeed this one were to indicate where our study is incomplete, to point out the areas left uncovered or treated inadequately, whether the reasons for this were objective circumstances or the subjective unwillingness of the researchers to confront certain problems.

We are aware that some sort of model would be useful as a practical guide for planners and architects, but we are also convinced that we have investigated a problem which does not present itself as an immediate task to be solved once and for all: the problem is rather a constant concern that requires action and a continual search for long-term solutions.

In this study several instruments are used to examine the same field, which leads in places to repetition and lengthiness. However, this permitted us to reach more secure conclusions than usual in a study which breaks new ground. Only on the basis of confirmation from several sources were we able to put conclusions in the form of recommendations without fear that they would be appraised as premature, or rash.

Spatial categories, from the apartment to the daycare center, were sleected as the framework of the final report. This may at first glance appear mechanical, but it is justified by the subject of the investigation, clearly indicated by the title of the study. Furthermore, we are convinced that the behavior of children and adults is conditioned at least as much by the degree of privacy or openness of a given space as by the equipment intended for a specified age category. Furthermore, we chose to present spatial areas in a sequence that conforms to the independence of the child, thus reducing organizational problems to a minimum.

We wish to express our thanks to:

-- The Department of Health, Education, and Welfare, Washington, D.C., which financed this investigation and for whom it was prepared. The professional staff of HEW provided valuable assistance to the investigators in resolving methodological dilemmas in areas where we lacked experience.

-- All those people in the target cities who helped bring this study to the light of day and all our coworkers at the Yugpslav Institute of Urbanism who took part in the preparation of the study.

-- Our greatest thanks nevertheless go to our patient respondents, the 1200 families (more than 5000 people) whose experience is woven into our views. If the positions we have taken are only partially correct, they sould not be accepted as a standard, but should stimulate the public to engage in the worthy activity of gradually, but steadily, improving reality for the better.

INTRODUCTION[*]

Childrens´play and game areas in the community have come to represent an increasingly severe problem. Burdened by increasing traffic and high population density, the agglomerations of the past are losing their structural equilibrium and becoming increasingly deficient in many respects. Aside from functions of the immediate physical environment which have deteriorated, there are others which have been entirely eliminated. One of these is space devoted to children´s play and games.

The pattern of employment in our cities is changing rapidly. Employment by both parents is growing, and an increasing number of children are left during working hours without adequate supervision or any supervision at all. Whether or not this phenomenon is exclusively negative, the problem has a very evident social aspect.

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[*] We have intentionally incorporated the entire introduction of the project design without any additions or corrections so that the reader can judge whether or not our assumptions have been borne out and whether our preliminary hypotheses have been confirmed by the progress and conclusions of the investigation.

The places planned for children to meet and play together in new apartment developments do not always meet with favor among those for whom they were built. This calls for investigation into the reasons for the shortcomings and the possibility of better organization of places for children to gather.

In the construction and reconstruction of residential complexes, Yugoslav society invests a degree of will, knowledge, and considerable resources in developing community facilities for children. Daycare funds have been established in our communes. This has been a stimulus for many new programs. (According to available statistics, in 1968 a total of 45,000 million dinars was invested in daycare facilities, which represents a large jump over the preceeding period.) It is expected that social concern for such community facilities will continue to grow, so that it is more than justified to engage in investigation dealing with this subject in a comprehensive, multidisciplinary, radical way.

Subject of the Investigation

This study has two major topics: space, and children occupying space. The investigators noted the existence of two different physical environments which also have differing social contexts:

(1) The family home (the indoor and outdoor space of the home),

(2) Space outside the family home (public spaces in the residential

building, open space in the immediate environment, indoor and outdoor space in childcare centers).

Within these two categories a difference was drawn between structures intended exclusively or primarily for children (playgrounds and daycare centers) and all other structures that are used primarily by adults but also by children. Enclosed and open spaces outside the family home have been divided into the categories of planned and unplanned children's play and game areas.

Goal of the Research

The problem confronting the investigators was easier to formulate as a series of questions to be answered than as working hypotheses to be proved or refuted by the conclusions of the study.[1/]

(1) What type of behavior do children exhibit while they are using a particular space?

(2) How significant is the connection, if any, between behavior and spatial configuration?

(3) To what degree is this correspondence conditioned by --
    (a) sociological and demographic factors,
    (b) written and unwritten cultural norms,
    (c) social-professional status?

(4) How great a divergence is there between the manner in which spaces are used by children and the expectations (preferences) of adults?

(5) What sort of connection exists between individual parental supervision and the physical environment?

(6) Is there a connection between impairment (physical and mental) and the physical environment?

(7) Is there a connection bwtween personality development and the physical environment?

In the very formulation of the problem one senses the difficulty of dividing up the problem into separate subjects to be treated as mutually independent fields for the varying professional interests of an architect, sociologist, psychologist, pediatrician, etc.

The Special Problems of the Research

This problem has its special features, just as every other. It seemed to us most important to establish the outstanding features of the age group under investigation:

(1) Since children do not live independently of their parents, they cannot define their needs and wishes independently:

(2) Children are unable to act upon their desires, even if they could clearly define them.

These two important limiting factors dictated a series of methodological considerations:

(1) The research team must be multidisciplinary and cooperation within the team must be intensive from the very outset of the work --

(2) The interviewers must be professionally selected and multidisciplinary --

(3) The interviewers must be specially trained and effectively supervised --

(4) Cooperation between the researchers and the families, and between the interviewers and the families, must be much closer than is usual in more general research --

(5) To the greatest extent possible there must be uninterrupted observation of the same children in a variety of physical surroundings --

(6) A good number of questions on the questionnaire must be indirectly presented (although this unavoidably increased the chances of arbitrary interpretation) --

(7) For many questions we had to use an indirect source of information (parents rather than the child for the 3-6 age group) --

(8) We had to have a large number of control questions (identical questions for parent and child and sometimes for daycare teachers) and we had to deal with the problem of the delicacy of control questions --

(9) We had to employ a guided interview technique rather than passive techniques --

(10) Frequently we had to resort to description rather than clear information (in the children´s questionnaire there were unstructured questions which were later -- in data processing -- classified into separate modalities) --

(11) We had to increase the direct participation of team members in field work (observation notes for playgrounds and informal gathering places, personal notes in the form of a professional diary, and so on).

Without minimizing the particularities of the research, an operational view of the goals would appear as follows:

INFORMATION SOURCES

I Subjective (participant)	II Subjective (observer)	III Objective (current standards)
-- parent -- child -- daycare teachers	-- participant observer -- research observer (sociologist, psychologist, pediatrician, and architect)	

Locate the most functional pattern of data from the above 3 sources for reliable conclusions regarding

child´s health mental
physical

General conclusions from analysis of existing situation

Models Recommendations

PART ONE: METHODOLOGY

1. The Social Components of the Sample[1]

1.1 Selection of Cities

The cities were chosen on the following basis:

(1) by size:

We adopted the following size categories:

-- small cities (to 70,000 population)

-- medium-sized cities (to 250,000 population)

-- large cities (over 800,000 population)

(2) by degree of urbanism:

as indicators of urbanism we have chosen:

-- the percentage of persons employed in tertiary activities

-- the percentage of employed women.

According to the above criteria three cities were included in the sample.

Methodology Table 1

City	Population	Employed in tertiary activities % of pop. /(No.)	Employed women % of total pop. /No.
Belgrade	985,254	21.03 (207,179)	14 (138,153)
Sarajevo	238,485	24.00 (56,248)	11.8 (28,202)
T. Užice	37,297	9.25 (6,425)	7.1 (4,796)

In the three cities chosen the indicators which we adopted as criteria of urbanism were higher in relation to all other cities in their size category.

1.2 Selection of Neighborhoods

(1) We wished to compare the life style of children from two social categories, one with a higher social status and one with a lower social status, and thus it was decided that in each city two sample neighborhoods would be selected.

-- one with a lower social standard, with a generally (more than 50%) blue-collar population, and

-- one with a higher social standard, with a generally (more than 50%) white-collar population.

The sample neighborhoods chosen were

Belgrade	Šumice	Higher standard
	Banovo Brdo	Lower standard
T. Užice	Centar	Higher standard
	Kurlagino Raskršće	Lower standard
Sarajevo	Koševo	Higher standard
	Čengić Vila	Lower standard

(2) It was decided to examine neighborhoods built between 1961 and 1971. The parts of the city built less than ten years ago are typical of future construction since in this period a definite housing policy was worked out and activities in this field were transformed from an anarchic approach to a

planned one. Thus we considered it more correct to examine the quality of the housing stock of this period (from the aspects relevant to our study) rather than the quality of the older urban tissue with its housing stock from the more distant past. That older, unplanned type of housing will not be typical of most future construction.

(3) Statistical data and technical documentation exist for neighborhoods built less than ten years ago. The lack of this type of documentation would have entailed great difficulties in the analysis of data and would have prolonged the time necessary to complete our study.

(4) The selected neighborhoods had to contain a daycare center which was built in the same time period (1961-1971) in order to qualify for our study.

In some cases, as in Belgrade, we had to choose among several neighborhoods which met the criteria listed above. In such cases we chose the neighborhoods with the highest percentage of children between 3 and 14 years of age.

It was decided that individual, single-family homes would not be included in our sample for the following reasons:

-- this type of housing does not predominate in the total urban housing stock of Yugoslavia --

-- as opposed to multi-family dwellings, these homes are not socially encouraged or aided by financial institutions -- a situation which is not likely to change in the foreseeable future.

-- Single-family houses have unique characteristics which set them apart from the multifamily housing more recently constructed. To include single-family dwellings in our study would mean adding a comparative analysis of a very complex problem.

-- *In the context of one-family* housing, open space is arranged to suit the habits, tastes, and desire for privacy of the inhabitants of the house. There is no effective social control of the layout of private open space, so for the practical purposes of our study such space was of little interest.

-- In single-family housing spatial relationships are quite different: furthermore, supervision and the relation between open and enclosed space are quite different from that in multifamily dwellings.

1.3 Choice of Age Groups

The criteria for the choice of age groups were as follows:

(1) Thresholds of individual psychosomatic maturation:

(2) Thresholds of the educational process:

(3) Age categories utilized in the organizational arrangement of daycare institutions.

The following age categories were adopted:

-- 3-7 years old

-- 7.1 - 11 years old

-- 11.1 - 14 years old.

We were careful to start with children about a year below the upper limits of each age category so that in the course of the study the children would not pass from one age category into another.

Children under three years old were excluded from our study: their psychological, physiological, and social characteristics are so distinct as to demand a special study.

The first category (from 3 to 7 years of age) was established with reference to criterion 2. This category comprises all preschool children. (Compulsory education in Yugoslavia is from age 7 to age 14).

Those over 7 years of age were divided into two groups with reference to criterion 1. The onset of puberty usually occurs in the eleventh year, which was taken as the dividing line between the two categories.

The upper limit of 14 years of age was chosen because this coincides with the end of compulsory schooling. This is particularly meaningful because at this age the child changes his former habits, that is, decides whether to continue his schooling and if so, what sort. His needs and his life style change, as does his social milieu. Thus teenagers comprise a special social category which requires special attention. Because the characteristics of this age group are quite distinct from those of the younger groups, if teenagers had been included in our study, our analysis would have been necessarily superficial.

The members of the research team were aware that age boundaries cannot be taken dogmatically since the stages of individual development vary greatly depending on genetic factors and the social milieu in which children grow up.

In families with two children we alternated studying the younger child in one family and the older child in the next. In families with three children we studied the middle child.

1.4 Type of Sample

In this study the sample was drawn on the basis of quota control. The reasons for this sort of sample are the following:

-- A random sample would have been impossible to carry out because of the large number of criteria.

-- The sample which we chose permits better comparison of data on a horizontal basis (two residential complexes in the same city) and on a vertical basis (comparing results of the research in various cities).

We obtained the sample of children from the city bureau of statistics after informing it of all necessary criteria for the drawing of the sample. Children within the selected sites were chosen randomly.

1.5 The Scope of the Sample

In the selected quota-control sample there are 1200 apartments/units of observation (6 residential complexes in three cities with 200 units in each complex), 6 schools, and 6 daycare centers. In each observation unit there are several sources of information, as may be seen from the table.

Observation units	Sources of Information
1200 apartments	1200 apartment and building inventories 1200 Parents´ Questionnaires 800 Questionnaires for two categories of school age children 600 Daily activity cycles of children and parents
6 schools	6 Indices for use in survey of schools 6 Questionnaires for teachers about the use of space (observations and suggestions)
6 daycare centers	6 Indices for use in survey of daycare centers 6 Questionnaires for teachers about the organization and ways of using space (observations - suggestions)
1212 observation units	3832 sources of information

An unfortunate consequence of our choice of instruments is that for preschool children we have only one source of information -- parents -- and for the two sets of school-age children (7-11 year-olds and 11-14 year-olds) we have two sources of information -- parents and the children themslves.

We endeavored to balance the number of boys and girls in our sample. There were 47% boys and 51.2% girls. Differences in the total number of children per city were insignificant. The proportion of children in each age group was also equalized:

35.9% lower age group (3-7 years)
34.2% middle age group)(7-11 years)
29.9% upper age group (11-14 years). This group is the smallest because children dropped out as they changed schools, finished eighth grade, etc.

The number in each age group was about the same in each city.

In the course of the two-year field research a considerable number of our subjects became unavailable.

2. Sampled Areas From an Urban Planning Standpoint

The residential complexes investigated differed in their spatial independence from the city as a whole. The residential complexes Šumice (Belgrade) and Koševo (Sarajevo) were conceived and executed as circumscribed units, relatively independent new precints within major republican capitals. One senses that their spatial isolation may have predetermined their relatively elite status: or perhaps it is the other way around -- conceived as elite areas, these complexes were inevitably predetermined to be spatially isolated.

Similarly, the Čengić Vila II complex in Sarajevo represents a delimited construction project. However, it is located in a less desirable part of town with limited space for expansion. This complex is located on the east side of the Miljacka Valley, rather close to an industrial zone.

Belgrade´s Banovo Brodo, potentially one of the most attractive locations in town, somewhat eluded the control of planners during the capital´s explosive growth. The portion of this commune that we investigated does not give one the impression of an integrated, modern, residential district, spatially and functionally organized as a unit, with an integral transportation system. Although it is less than ten years old, it strikes one as a neighborhood that has undergone redevelopment.

Both neighborhood complexes in Titovo Užice (Kurlagino Raskršće and Centar) are quite different from the four preceding ones, both as to structure and as to the city they are located in. Titovo Užice developed quite suddenly from a country town into a city. Besides the social changes accompanying rapid development of this kind, urban growth tended to occur through the build-up of already existent tissue, partly due to the dilapidation of the existing structures and partly due to the ravine setting of the city. Thus both residential complexes are in fact reconstructed neighborhoods of moderate size. It is interesting that the higher-standard neighborhood here is located in the very center of town, testifying to the fact that the center has not deteriorated with respect to living conditions, as is the case in Belgrade and Sarajevo.[2]

3. General Data on Respondents

3.1 Newcomers vs. natives

Given the speed of migration into the larger cities of Yugoslavia, we assumed that we would find a large number of residents who had lived in small towns or villages before moving into their present apartments. We assumed that newcomers tend to settle in the newer sections of town rather than in older urban tissue.

Graph 1 reveals that most of our respondents moved into their present apartment from another part of the same town -- and not from some small town or village in the countryside. Furthermore, this phenomenon is more marked the larger the town is. We expected the opposite that the influx of migrants from small towns would be greater in Belgrade than in the other two towns investigated. The fact is that the number of migrants from small towns was significantly greater in Sarajevo and Titovo Užice than in Belgrade.

Newcomers from small towns settle primarily in lower standard districts.

Newcomers from small towns	Lower-standard developments	Newcomers from small towns	Higher-standard developments
8.4%	Banovo Brdo	5.6%	Šumice
24.0%	Čengić Vila	17.6%	Koševo
18.1%	Kurlagino	10.2%	Centar

The population in our sample is comprised predominantly of people who have been living in town for an extended period of time, as the graph indicates. This fact certainly has a number of consequences for the views and behavior of parents and children alike.

3.2 Tenancy Data

Before moving into their present apartments most of our respondents had been living in the city, and more than half of these residents had previously lived in apartment buildings rather than in individual houses (Graph 2).

Almost two thirds of our respondents had had all the basic sanitary facilities in their previous homes, which means that many of the individual houses were equipped with sanitary facilities. Sarajevo's Koševo is outstanding in this respect: 92.7% of the respondents had previously had all the sanitary facilities in their homes (Graph 3). This surely derives from the fact that the percentage of those who had previously lived in apartment buildings is highest in this development.

The smallest number of those who had previously had all the sanitary facilities live in Kurlagino Raskršće: the number of respondents who had previously lived in apartment buildings rather than individual houses is smallest in this development.

Most of our respondents live in socially owned apartments. A very small number own the apartments they live in (except in Belgrade´s Banovo Brdo and Šumice), and an insignificant number rent their apartments from other individuals.

3.3 Length of Tenancy

Half of our respondents have been living in their present apartments for more than five years.

3.4 Family Size

The most typical family size in our sample is four members, followed by three, and then five members. The percentage of six-member and larger families is very small, as is the percentage of two-member families (one child and one parent).

Thus the typical family in our sample may be assumed to be composed of the parents and two children. We believe that this family is representative of the Yugoslav urban population.

3.5 Order of Children´s Birth

Among the children in the sample, 36.6% are the younger of two children in the family. 35.5% are only children. 27.6% are the older of two children in the family.

3.6 Average Age of Parents

The average age of parents varies between 30 and 40 years of age for the mother and between 35 and 45 for the father. As is to be expected, younger children have younger parents, and older children older parents (Graph 4).

3.7 Parents´ Employment

In a bit more than half of the families both parents are employed. In the entire sample there are very few families in which only the mother works. The father is the only employed person in just over one third of the families. This picture is quite typical of the Yugoslav scene, where the ratio of employed men to employed women is 2.8:1 (Statistički godišnjak 1972 /1972 Statistical Yearbook/).

Graph 5 shows that in the lower-standard apartment developments the number of families with both parents employed is 12-20% greater than the number of such families in the higher-standard developments.

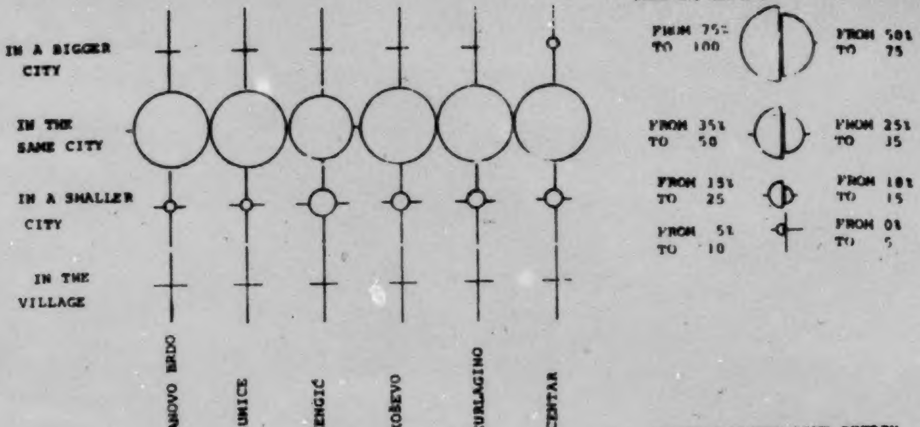
Our criterion for distinguishing developments of higher and lower standard was more or less validated by the social breakdown of the of the inhabitants. Graphs 6 and 7 clearly demonstrate that the lower-standard developments are largely inhabited by families in which the parents are less educated. Data indicating blue-collar status vs. white-collar status (possession of ´higher education´) are distributed completely symmetrically by apartment development: where the number of blue-collar workers is smaller, the number of inhabitants with higher education is greater, and vice-versa. (These data agree with the findings of S. Vujović reported in "Socijalna diferencijacija i socijalna segregacija u našim gradovima," /Social Differentiation and Social Segregation in Yugoslav Cities/, Lica, Sarajevo, 5, 1972).

3.8 Family Type

Given the size of the apartments, it is understandable that 82.8% of the respondents report that no one beyond the immediate family lives with them. We expected that the number of extended families in our sample would be greater. The families which include a close relative -- usually only one -- are distributed regularly throughout the cities and apartment developments.

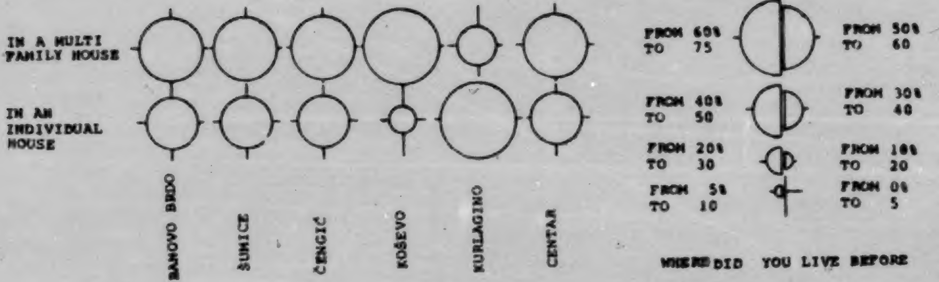
PART ONE: GRAPHS

SAMPLE GRAPH 1



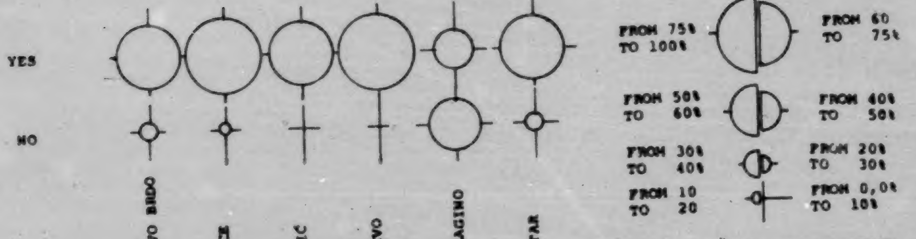
WHERE DID YOU LIVE BEFORE

SAMPLE GRAPH:2



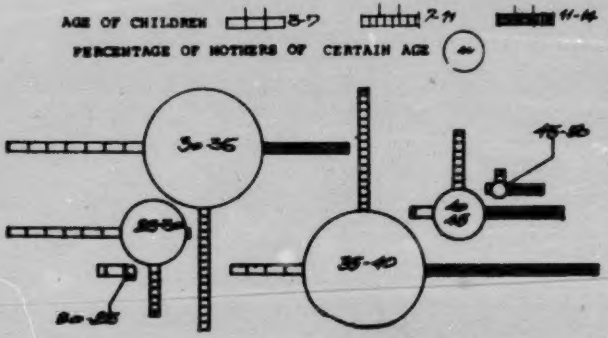
WHERE DID YOU LIVE BEFORE

SAMPLE GRAPH.3

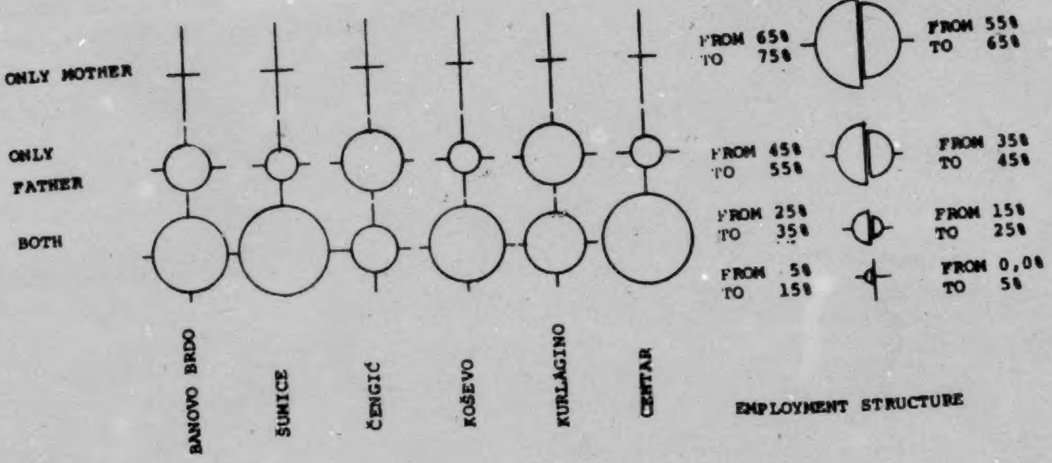


DID YOU HAVE ALL SANITARY FACILITIES IN YOUR PREVIOUS APARTMENT

SAMPLE GRAPH 4

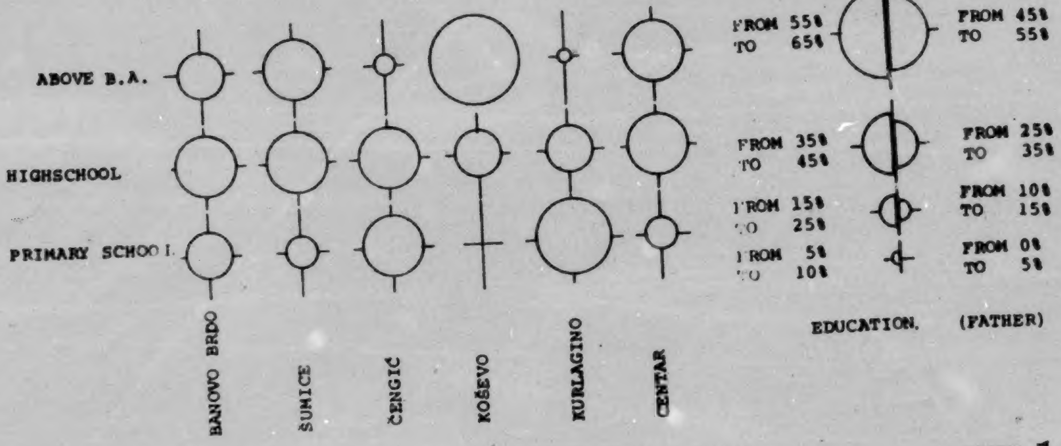


SAMPLE: GRAPH 6



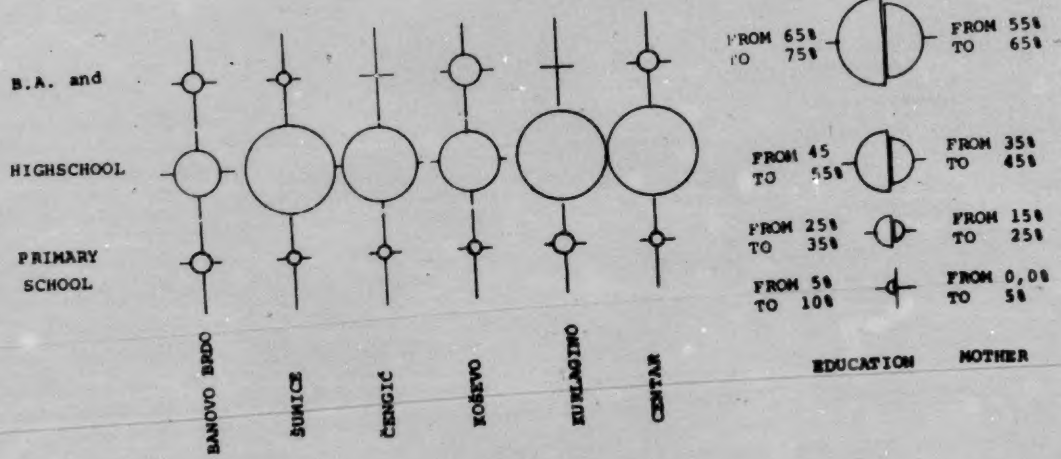
EMPLOYMENT STRUCTURE

SAMPLE.GRAPH 6



EDUCATION. (FATHER)

SAMPLE GRAPH. 7



EDUCATION MOTHER

PART TWO: APARTMENT BUILDINGS

1. General

As with the apartments, we attempted to determine the suitability of the public spaces of buildings for children´s play and games. As much as possible we confined ourselves to direct functional relationships, although we are aware that other characteristics of buildings may have an indirect, but nevertheless equally significant effect on children´s behavior.

Our apartment building inventory encompassed 240 addresses (buildings) in six apartment developments in the three cities we investigated. We did not fill out a building inventory for our entire sample of 240 street addresses, but only for the buildings in which there were more than 5 respondents (families). In the three cities there were 109 such buildings (addresses).

With the exception of the Užice complexes, there was little variety of the building types in our sample. The high degree of building standardization led us to classify our building data in two categories and to gather our data by means of two separate instruments. We collected general data only for representative building types, and we recorded specific data (which might vary from case to case, from address to address) for each of the 109 addresses with more than five respondent families.

The largest number of general data sheets was filled out in Titovo Užice -- 35 (17 for Kurlagino Raskršče and 18 for the Centar district, which indicates that the sample of building types was most varied in this city.

The ratio of general to specific data sheets in Belgrade and Sarajevo was approximately 1:2, with a somewhat lower ratio in Titovo Užice (1:2.5).

The equal number of general data sheets filled out in Belgrade and Sarajevo may be explained by the similarity in the spatial composition of Banovo Brdo and Čengić Vila on the one hand and between Šumice and Košovo on the other: also, there was a high degree of building standardization in all of the building complexes.

We made the following assumptions:

- Higher residential density demands greater observance of rules and regulations, reducing the individual's range and freedom of activity.
- As a building type, the residential tower is less suited to families with children, and, more than low-rise linear buildings, tends to discourage children from 'hanging about' and playing.
- The floors most suited to the pattern of parents' and children's utilization of space are the ground floor and the floors requiring the use of the elevator (GF + 4 and up), since they do not involve climbing stairs.

Table 1 shows that the linear multifamily buildings are over four times more frequent in our sample than the residential tower and that Titovo Užice leads in the number of towers (and also the number of multifamily linear buildings). In the last ten years a relatively large number of residential towers have been built in this town. The city planners believed that this building type, with its compact foundation, was best suited to the highly contoured terrain and somewhat compensated for the drawbacks of the ravine setting of most of the town by offering views from the upper stories. On the other hand, the existing linear buildings in this town are short, (again, due to the terrain), with few segments.

Buildings Table 1

Building type		Total	Belgrade B.B.	SU	Sarajevo ČE	KO	T.Užice KU	CE
Multistory linear	F V	54 81.8	6	9	8	7	12	12
Residential tower	F V	12 18.2	1	-	-	1	4	6
Total	F	66	7	9	8	8	17	18

Buildings Table 2

to GF+4	F V	37 55.2	6	9	1	5	11	5
to GF+8	F V	22 32.9	-	-	7	2	5	8
Over GF+8	F V	8 11.9	1	-	-	1	1	5
Total	F	67	7	9	8	8	17	18

Table 2 shows that most of the buildings in our sample are low, up to GF+4, and thus belong to that category of building that does not necessarily require the installation of an elevator: buildings higher than GF+8 are much less common. The largest number of low-rise buildings is in the lower-standard Titovo Užice complex, and the largest number of taller buildings is in the higher-standard district in the same town. This latter fact unambiguously indicates the prestige of high-rise living in this town, which only recently attained the status of a medium-size city and in which the individual house still represents the dominant building type.

Along with the predominance of low-rises, our data indicate that most of the apartments in our sample are located on the lower floors (17.7% on the ground floor and 59.1% between the first and fourth stories). There is an insignificant number of high-floor apartments located above the GF+8 level: the number is so small as to be insufficient for appraising the suitability of high floor apartment living.

Our assumption that the lower floors are better suited to families with children and that the ground floor is the best of all (because of immediate contact with the ground) could not be completely verified partly because very young children (under three years old) were not included in the sample, and it is their parents who benefit most from living on the ground floor (because of the need to carry the baby carriage and the baby). On the other hand, in accordance with the interests of children, the ground floor should be inhabited chiefly by children from age 3 to 7, which we could not verify by cross tabulating apartment floor with age of children.

But whatever the existing situation, one may be sure in advance that in real life an ideal distribution of apartments is impossible; chiefly because of the shortage of available apartments, but also because of high apartment prices, which means that apartments are purchased by those who can pay and not by those with the greatest need. In the rare situations in which a choice is possible, parents select their apartment according to their personal criteria and only secondarily according to possible advantages for children. We might add that changing apartments, as we established in Part ONe, is not a common phenomenon in Yugoslavia (due to the apartment shortage and due to housing practice, whatever its cause).

2. Building Features

Completing a building inventory was subordinate to the goals of the study. As with apartments, we attempted to determine the extent to which the public spaces of the building permit or even encourage children's play, or whether from a child's standpoint these public spaces are 'inadmissible.' Thus we selected several items from the inventory which we considered indicators of the phenomenon which we termed building courtesy.

These indices included:

- a covered ground-floor passageway
- an overhang over the entrance
- a foyer building entrance
- good natural illumination at the entrance hall
- natural illumination of the stairway
- a keyless elevator closure (in elevator buildings)
- space within the building intended primarily for children to gather and play
- a loggia or balcony approached directly from the stairway.

Along with the notes of an architect-observer and the personal observations of the investigators,[1] these building features served as the basis for evaluating building attractiveness. They are supplemented by the statements of parents and children regarding preference for spaces outside the apartment and their suitability for children´s play.

According to Graph 1, the number of covered passageways (where childre like to ´hang out´) is insignificant in the sampled buildings -- not more than one fifth of the total number.[2] Covered passageways are much less common than entry overhangs.

These pasaageways naturally are just one of the ways -- and perhaps not the best way -- for children to remain at the building without infringing upon the privacy of the ground-floor apartments. At the same time, the children are outside but under cover and thus shielded to a degree from the inclement weather of our region.

We encountered the greatest number in Banovo Brdo, and next in the Centar of Titovo Užice. We understood covered passageways as, in part, an effort by urban planners to shape a wholistic microenvironment by integrating separated housing blocks (thus defining a more enclosed and protective urban space) and allowing for pedestrian crosstraffic. The research assumption that the building entrance has lost its social function was confirmed: among the sampled buildings most entrances were hallways rather than foyers (Graph 2).

Such hallway entrances do not offer the possibility of standing, lingering, or sitting in a space designed for that purpose . We did not come across even so much as a tiny sitting niche. This hallway-type of entrance in the buildings we visited functions as a mere mechanical distributor and is identical in area to the landings in front of apartment entrances on the floors above. It fails to respect the basic rule of functionality: that the size of ciruclation areas must reflect the frequency or intensity of use.

The largest number of hallway entrances was recorded in Titovo Užice, and the least in Belgrade. It is interesting to note the frequent occurrence of entry overhangs together with hallway-type entrances, which discourage lingering: this contradiction suggests that these two spatial elements were not conceived concertedly, as mutually interrelated elements.

The expected correlation between the standard of residential complexes and type of building entrance was not confirmed by our data. (The investigators assumed that upper-standard developments would have more amply proportioned entrance halls.) This indicates that architects are insufficiently aware of the role of the entrance and thus regardless of economic factors, fail to devote sufficient attention to it. If, then, the reason for the decision in favor of certain dimensions is neither functionality or economy, the only other possibility is that the spatial characteristics of the entrance are the consequence of the arbitrary inspiration of the architect. (This is only our impression -- it is not our intention to engage in arbitrary guesswork.)

The other expected correlation -- that buildings of greater height would require a more elaborated, foyer-type of entrance -- similarly was not fully supported by the data. According to Graph 3, low-rise buildings tend to have foyer-style entrances. Buildings of medium height are much more apt to have hallway-style entrances, while high-rises show a slight tendency in favor of foyer entrances Yet one could not say that there seems to be any conscious attempt to proportion entrances according to building height: in many towers the entrance is just a bit larger than the foyer entrance to four-story buildings.

Regarding the degree of natural illumination,[4] we found that about two thirds of the sampled entrances have good natural illumination.

Most of the poorly lit entrances were found in Belgrade, generally in lower-standard buildings (Graph 4).

Most well-lit entrances (good sunlight) are to be found in the low-rise buildings without elevators (Graph 5).

Artificially lit stairways are predominant among the buildings we investigated (Graph 6). Belgrade is the leader here: without exception all 16 Belgrade buildings in the study have artificial lighting. All the Belgrade buildings except one are low-rise (GF+4), and the single residential tower in the Belgrade portion of the study also has an artificially lit stairway. In contrast, Titovo Užice leads in the number of naturally lit stairwells.

Graph 7 cross tabulates stairway type and building height. A large number of low-rise buildings have artificially lit stairways, which seems improper to us, as these buildings do not have elevators. Since the stairway serves as the only route from the building entrance to the individual apartment, the experience of passing through is of some importance. The datum of the large number of artificially lit stairways may be supplemented with other particulars that describe the true proportions of the problem.

(1) In 57 of 67 possible cases the stairway light switch is located at a height of over 150 cm[5] (beyond the reach of an average-size child in the younger school-age group), and is completely

useless to a 3-7-year old , the age group that goes out for short periods of time and seeks rapid changes of environment (from inside to outside and vice-versa), and requires a feeling of security and the nearness of parents and at the same time large spaces that are not to be found inside the apartment (Tables 3 and 4).

Buildings Table 3

Height of stairway light switch		Total	Belgrade			Sarajevo			T. Užice		
			BB	ŠU	Total Belg.	ČE	KO	Total Saraj.	KU	ČE	Total T.Už.
Less than 150 cm	F V	10 14.9	-	-	-	-	-	-	8	2	10
More than 150 cm	F V	57 85.1	7	9	16	8	8	16	9	16	25
Total	F V	67 100.0	7	9	16	8	8	16	17	18	35

Buildings Table 4

Switch height in artificially lit stairways[6]		Total	BB	ŠU	Total Belg.	ČE	KO	Total Saraj.	KU	ČE	Total T.Už.
Less than 150 cm	F V	4 11.4	-	-	-	-	-	-	4	-	4
More than 150 cm.	F V	31 88.6	7	9	16	5	1	6	5	4	9
Total	F	35*	7	9	16	5	1	6	9	4	13

* No. of building entrances with artificially lit stairways.

(2) Almost a third of the buildings sampled have an elevator (Graph 8), while the number of families living in buildings with elevators is close to a half of the total number (49%). Expressed in percentages, 32.9% of the 67 buildings have an elevator (key-operated or open) and 67.1% lack one.

(3) More than a quarter (27.2%) of the elevator buildings have open elevators: the ratio of key elevators to open elevators is less favorable for medium-height buildings than for high-rises (Graph 9).

(4) In most of the elevators there is a plate attached ba the manufacturer stating: NOT FOR USE BY CHILDREN UNDER 15 UNLESS ACCOMPANIED BY PARENT.

The largest number of buildings with elevators is in the upper-standard Užice Centar district. This district has the largest number of parents who forbid their children to use the elevator alone.

Our conclusions regarding the public areas of buildings (and the impression of the researchers on site) are that the configuration, dimensions, and illumination of these spaces do not encourage people to linger.[7]

Neither observers nor investigators noticed children hanging about the public spaces of buildings (confirmed by the remarks of children and parents in records of daily activity cycles). This may in part be due to the lack of any tendency to meet the vital human need for movement and communication.[8] We say "in part" because the parents' remarks about the place they do not wish their children to play in reveals another facet of the problem. Parents wish to avoid possible conflict involving the use of space whose legal ownership is unclear and whose use may be set only through negotiation and the agreement of all concerned parties.

Although we feel that the public areas of the building should be given much more study (perhaps more than the apartment and the open space around the building) the meagerness of these spaces and the lack of data discouraged us from wrestling with the problem, and so we have reduced this topic to the minimum proportions.

3. Open-air Spaces in the Building

If the entrance and stairway landings and platforms are unaccommodating to any social function, there is a corresponding scarcity of usable roof terraces or loggias (balconies) that may be entered directly off the stairway and which meet the requirements of safety for children's play (Graph 10).

Graph 11 and 11a indicate that the lowest structures are the least likely to have a roof terrace which serves as an outdoor public space, while high-rises are most likely to have such terraces. This is completely in accord with expectations, as a tall structure may be considered more artificial than a low one and should compensate for this objective inconvenience.

Buildings Table 5

Permit child to be alone on roof terrace		Total	Belgrade		Sarajevo		T.Užice	
			Banovo Brdo	Šumice	Čengić Vila	Koševo	Kurlag. Raskrš.	Centar
Permit	F	372	107	32	8	62	58	105
	V	74.4	80.4	86.6	72.7	75.6	63.7	71.9
	H		28.8	8.6	2.2	16.7	15.6	28.2
Forbid	F	125	24	5	3	20	32	41
	V	25.0	18.0	13.5	27.3	24.4	35.2	28.1
	H		19.1	4.0	2.4	16.0	25.6	32.8
No fixed opinion	F	3	2	0	0	0	1	0
	V	0.6	1.4	0.0	0.0	0.0	1.0	0.0
	H		66.7	0.0	0.0	0.0	33.3	0.0
Total	F	500[9]	133	37	11	82	91	146
	H		26.6	7.4	2.2	16.4	18.2	29.2

The existence of a terrace does not mean that it is usable by children. Parents must give permission, and three quarters of the respondents with roof terraces do not permit their children to use it (Table 5). Thismay be explained by a fear of children falling off, and this fear is all the greater in that roof terraces are most apt to be found on the highest buildings. The roof terrace arouses great anxiety as opposed to the apartment loggia, which only about a tenth of all parents forbid their children to use alone. Of this tenth, almost three quarters are parents of very young children, and their fears are quite justified.

It is difficult to discuss the opinions in terms of residential complex, but one can say that in the Užice higher-standard district (which has the most buildings with terraces) a notably high number of parents forbid their children to use the roof terrace. This figure is just a bit lower than that for the Banovo Brdo sample, where only one roof terrace was located.

4. Children´s Clubrooms

Older children, 11 to 14 years old, are not oriented exclusively to play in their activities. This was confirmed in the observation of playgrounds. In Banovo Brdo, most of the children of this age level were noted in the wooden huts using mechanical toys (see section on playgrounds).

These older children report that they generally do not leave the neighborhood. We noted that similarly, most parents are not favorably inclined to the children´s doing so. In investigation of the children´s concepts of play areas, we established that older children tend to think of record clubs as the most essential neighborhood facilities (Graph 12).[10] In contrast to the youngest age group (preschoolers), children ´devour´ space and take little interest in equipment, which is generally experienced as a barrier to be overcome and whose original purpose is often ignored. In contrast the older children prefer selected and generally more expensive equipment. According to the children's responses, it would seem that separateness and spatial diminution represent the sought-after spatial qualities for 11 to 14-year olds.

In response to the question, "Do you have your own clubroom in the building?" less than a twentieth of the older school-age children answered "yes." The number of children whose building has never had a clubroom is nearly three times larger (Tables 6 and 7).

For these reasons, the investigators attempted to determine whether there is a space within the larger buildings where the older children could get together, a space they could go to when they want, where they could gather in larger numbers than can be accommodated by the one-bedroom apartment of a family of four.

When we asked the parents,[11] more than two thirds replied that there were no such areas (tenants' laundry rooms, basement storage area) (Table 8). As we expected, when there were such children's areas, they had usually been originally arranged as laundries but were not used by the residents. After laundry rooms, the areas most often cited were basement facilities, followed by a small number of ground-floor areas. As might be expected, the number of attic areas was insignificant: most of the urban buildings constructed in the last fifty years have flat roofs and thus lack attics.

The number of people regarding a former laundry room as a possible kids´ clubroom is largest in Banovo Brdo (the lower-standard Belgrade complex). Interestingly, Banovo Brdo also contains the largest number of those who think that such a facility might be housed in the basement.

The percentage of older children who believe that their building has no place for a children´s clubroom is the same as the percentage of parents who think likewise (cf. Table 9), although the samples are not identical. Thus evidently the information that more than two thirds of our families live in buildings where objective condition prevent the establishment of a kids´ clubroom is trustworthy.

Nearly one third of the older children in the sample report that they have tried to do something to convert an existing space in the building into a gathering place. Taking into account their youth, this number testifies to a rather high degree of initiative, particularly because more children have attempted to form a clubroom than not (Table 10).

There was a surprisingly large number of children who refrained from answering this question, just as there was a surprisingly large number of parents not replying to the question of whether they would support turning some space into a clubroom for children. This question was posed to all families, not just to those living in buildings where an opportunity existed. The largest number of those not answering was in Koševo (Sarajevo, lower-standard).

According to children, tenants are not disposed to permit facilities designed for general use to be used for other purposes.

> "Up to a month ago it was arranged that we could take one of the four laundry rooms. They had been empty for four years, with nobody using them. When we decided to take that laundry room we went to the president of the tenants´ council and he told us to write up a petition and he´d approve it for us. We began to fix it up right away. But some people came who are always mad at children and dump water and we put up a fuss. They said that they were going to hang up their clothes even if there were three laundry rooms. We complained but we didn´t get anywhere." (Questionnaire no. 141)

In addition, parents consider many facilities that attract children to be unsuitable or even dangerous, which keeps these places from being used.

> "In my building there is a place where we could set up a clubroom. It´s in the basement, where there has been a break in. It´s not very big, but there´d be enough space. I wanted to do over that basement with my brother, but Dad didn´t let us because the police might come and take fingerprints." (Questionnaire no. 777)

The reason for the lack of a clubroom is often the absence of real motivation, and thus of real initiative.

> "There´s a little place in our building where some kind of clubroom could be made. But it hasn´t been mentioned by anybody, and certainly not by the president of the tenants´ council." (Questionnaire no. 754)

In some buildings children get together on the roof terrace, but only at certain times.

> "We set up a club three years ago. There are 20 members, from preschool kids up to eight grade. The club really functions

> only in the summer, and the rest of the year we get material[12] together for the summer. Songs, stories." (Questionnaire no. 967

Children do not need a great deal of space for get-togethers. Record clubs work well partly because the limited space promotes the creation of 'atmosphere.' It simplifies getting acquainted and striking up conversation. In designing buildings an area should be provided -- in the attic, on the roof, on the ground floor, or even in the basement -- that children can use and where children can post the pictures their parents forbid them to put on the walls at home ("I noticed that my friends stick pictures up on the walls, and so I did it too, but my parents were against it and so I had to take them down."). This would be the kind of place children could bring their friends whenever they wanted (always a problem in small apartments with several family members): it would be isolated enough that children could play music and make noise without being afraid that the neighbors would pound on the walls and yell at them. There is not much space in the apartment that may be designed exclusively for children, but a great deal more can be done within the building than is done now.

If people get together and talk things over, such facilities might serve a variety of age levels and purposes at different times (tenant council meetings, for example, which are held infrequently and in the evening).

In the course of the pretest, which was carried out in Mirijevo Boulevard, parents reported that places set aside for the young people in the building were breeding grounds of juvenile delinquency (liquor, drugs, sex). It is hard to accept this sort of statement as well-intentioned. Puberty is probably a greater trial for parents than for children: viewing their children's growing independence, parents feel that the ground is giving way underneath their feet and that their authority is evaporating. At a point when the parent should be abandoning his role of overseer and taking on that of friend, parental involvement most often fails.

The problem has another, broader dimension. In the new apartment developments which do not offer the young any opportunities for getting acquainted, there is no chance for a feeling of community or allegiance to the neighborhood to develop. Failure to grant the young their own areas is a demonstration of a lack of confidence in them and their upbringing. Why then are we amazed that when young people are in a position to decide on their own they most readily prefer any environment other than their own immediate surroundings.

PART TWO: TABLES

Buildings. Table 6

Is there a children's club in your house		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Cent
Yes	F	15	3	3	0	4	2	3
	V	3.9	4.3	4.5	0.0	6.1	3.2	5.9
	H		20.0	20.0	0.0	26.7	13.3	20.0
There was one	F	37	10	3	3	11	4	6
	V	9.7	14.5	4.5	4.4	16.7	6.5	11.8
	H		27.0	8.1	8.1	29.7	10.8	16.2
No	F	197	36	56	65	21	12	7
	V	51.6	52.2	84.8	95.6	31.8	19.4	13.7
	H		18.3	28.4	33.0	10.7	6.1	3.6
No reply	F	133	20	4	0	30	44	35
	V	34.8	29.0	6.1	0.0	45.5	71.0	68.6
	H		15.0	3.0	0.0	22.6	33.1	26.3
Total	F	382+/	69	66	68	66	62	51
	H	99.2	18.1	17.3	17.8	17.3	16.2	13.4

+/ Interviewed children 11-14).

Buildings. Table 7

Is there space for a club in your building		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr	Cent.
Yes	F	153	49	17	21	33	18	15
	V	39.7	71.0	25.8	30.9	47.8	29.0	29.4
	H		32.0	11.1	13.7	21.6	11.8	9.8
No	F	217	19	46	46	34	42	30
	V	56.4	27.5	69.7	67.6	49.3	67.7	58.8
	H		8.8	21.2	21.2	15.7	19.4	13.8
No reply	F	15	1	3	1	2	2	6
	V	3.9	1.4	4.5	1.5	2.9	3.2	11.8
	H		6.7	20.0	6.7	13.3	13.3	40.0
Total	F	385+/	69	66	68	69	62	51
	H	100.0	17.9	17.1	17.7	17.9	16.1	13.2

Interviewed children 11-14

Building.Table 8

Is there an unused space in your building		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Sumice	Ćeng. vila	Koš.	Kurl. raskr.	Cent.
On the ground floor	F	53	13	3	8	16	5	8
	V	4.4	6.4	1.5	4.0	7.8	2.5	4.1
	H		24.5	5.7	15.1	30.2	9.4	15.1
In the cellar	F	79	32	17	8	11	3	8
	V	6.6	15.8	8.6	4.0	5.4	1.5	4.1
	H		40.5	21.5	10.1	13.9	3.8	10.1
In the attic	F	12	2	0	0	5	3	2
	V	1.0	1.0	0.0	0.0	2.4	0.5	1.0
	H		16.7	0.0	0.0	41.7	25.0	16.7
In the old loundry-room	F	103	63	9	1	3	13	14
	V	8.6	31.2	4.5	0.5	1.5	6.5	7.1
	H		61.2	8.7	1.0	2.9	12.6	13.6
No such space	F	929	91	162	178	166	175	157
	V	77.4	45.0	81.8	89.0	81.0	87.9	79.7
	H		9.8	17.4	19.2	17.9	18.8	16.9
No reply	F	25	1	7	5	4	0	8
	V	2.1	0.5	3.5	2.5	2.0	0.0	4.1
	H		4.0	28.0	20.0	16.0	0.0	32.0
	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

Building.Table 9

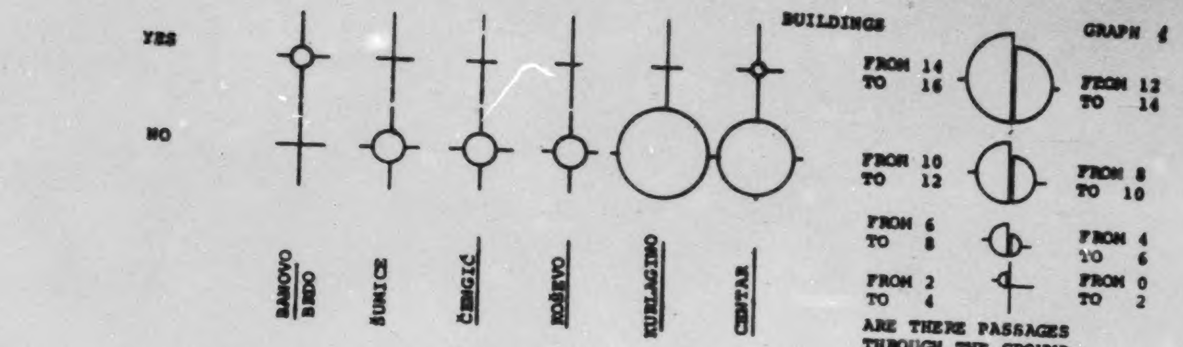
Is there an unused space in your building		Tot	Yes	No	No reply
In the ground floor	F	12	7	4	1
	F	3.1	4.6	1.8	6.7
	H		58.3	33.3	8.3
In the cellar	F	32	22	9	1
	V	8.3	14.4	4.1	6.7
	H		68.7	28.1	3.1
In the attic	F	4	2	2	0
	V	1.0	1.3	0.9	0.0
	H		50.0	50.0	0.0
In the old loundry-room	F	35	27	8	0
	V	9.1	17.6	3.7	0.0
	H		77.1	22.9	0.0
No such place	F	288	93	192	13
	V	77.4	60.8	88.5	86.7
	H		31.2	64.4	4.4
No reply	F	4	2	2	0
	V	1.0	1.3	0.9	0.0
	H		50.0	50.0	0.0
	F	385+/	153	217	15
	H	100.0	39.7	56.4	3.9

+/ Interviewed children 11-14

Buildings.Table 10

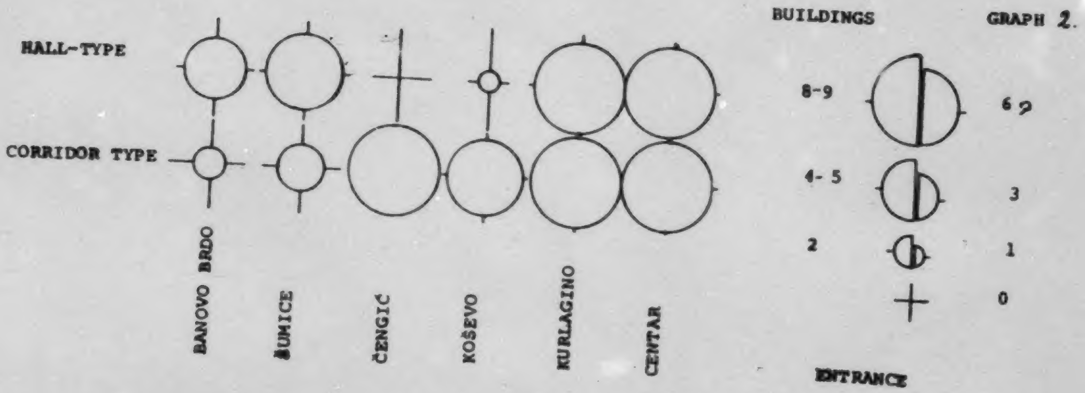
Did you try to make a club in your building		Tot.	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čeng. vila	Koševo	Kurl. raskr.	Cent.
Yes	F	117	29	12	18	23	22	13
	V	30.8	42.0	18.2	26.9	35.4	35.5	25.5
	H		24,8	10.3	15.4	19.7	18.8	11.1
No	F	106	20	21	31	10	10	14
	V	27.9	29.0	31.8	46.3	15.4	16.1	27.5
	H		18.9	19.8	29.2	9.4	9.4	13.2
No reply	F	157	20	33	18	32	30	24
	V	41.3	29.0	50.0	26.9	49.2	48.4	47.1
	H		12.7	21.0	11.5	20.4	19.1	15.3
	F	380	69	66	67	65	62	51
	H	98.7	18.2	17.4	17.6	17.1	16.3	13.4

PART TWO: GRAPHS



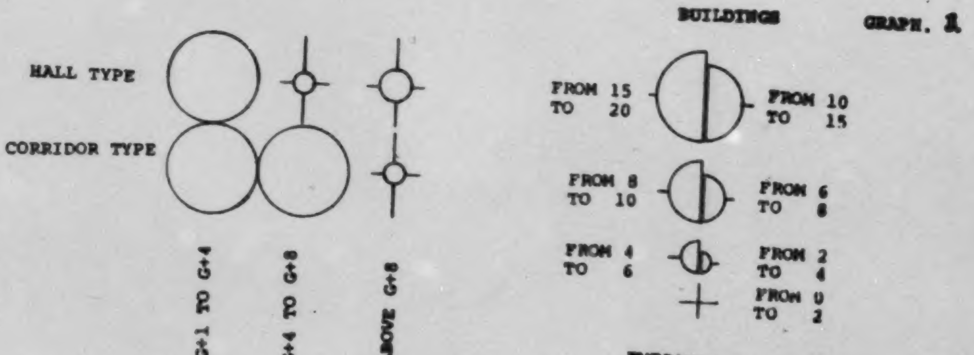
BUILDINGS GRAPH 1

ARE THERE PASSAGES THROUGH THE GROUND-FLOOR OF YOUR BUILDING



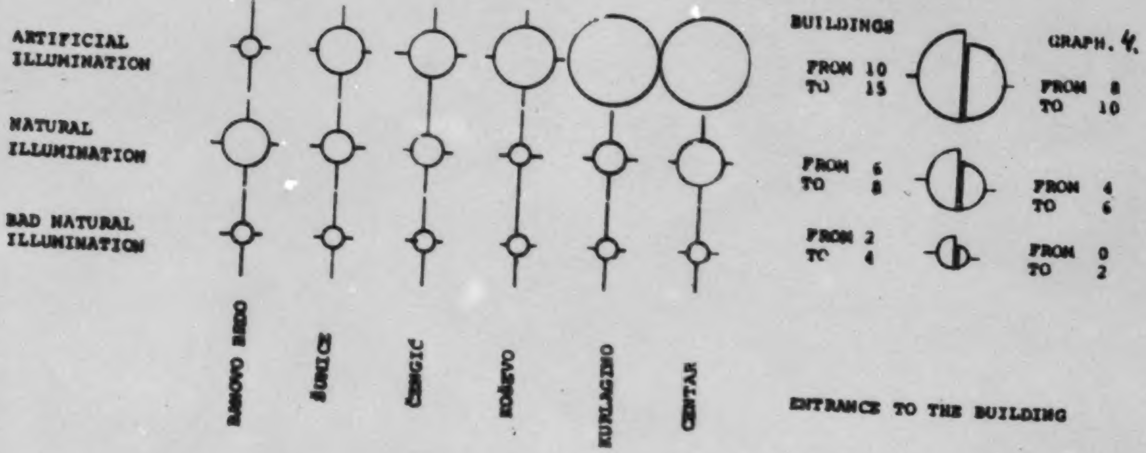
BUILDINGS GRAPH 2.

ENTRANCE



BUILDINGS GRAPH. 3

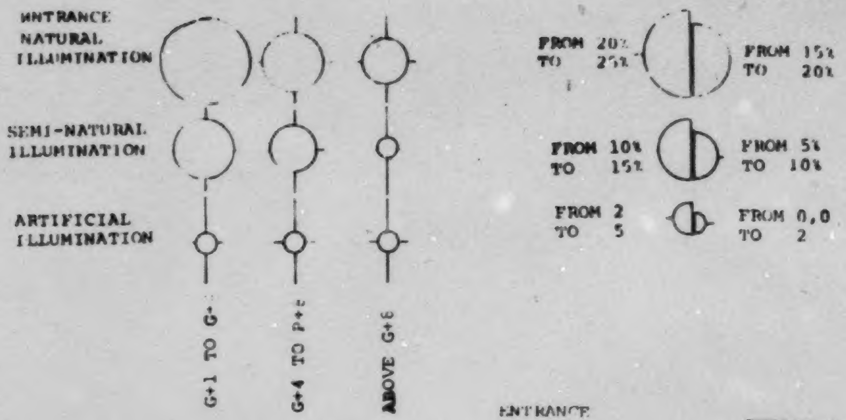
ENTRANCE



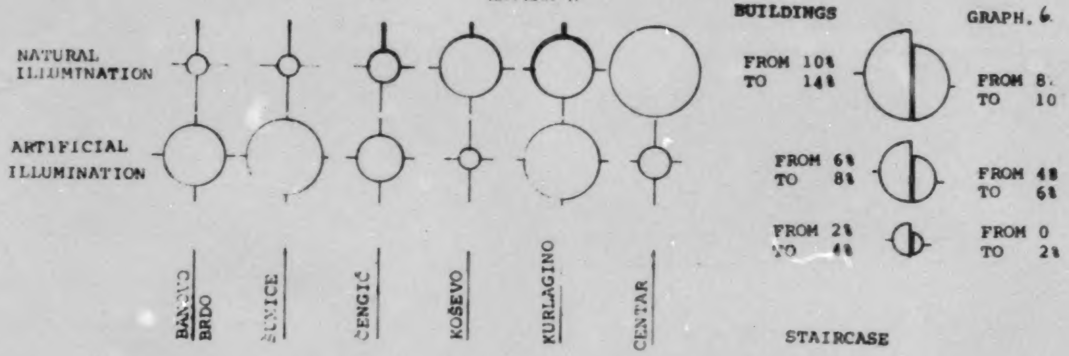
BUILDINGS GRAPH. 4.

ENTRANCE TO THE BUILDING

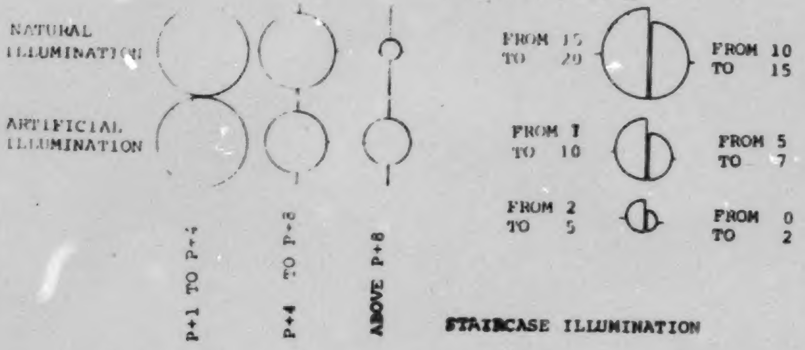
BUILDINGS GRAPH 5



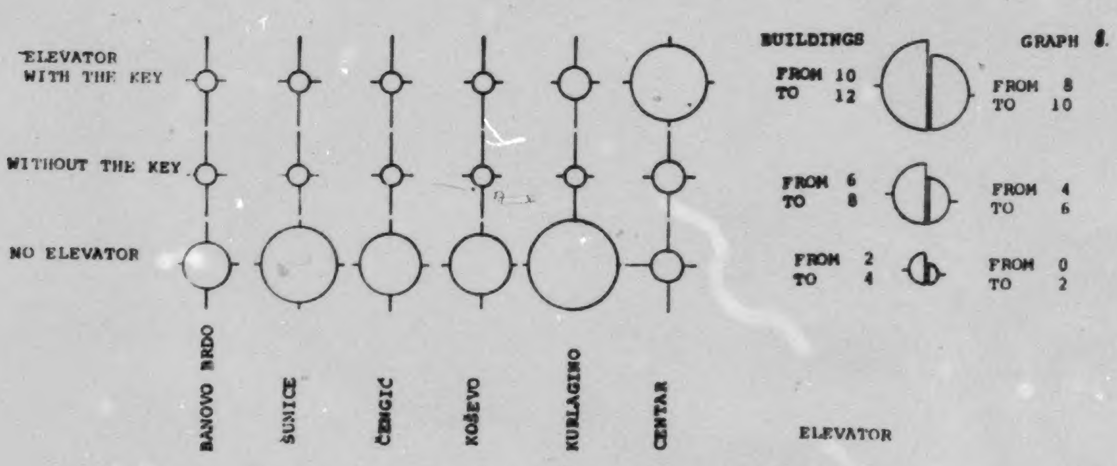
ENTRANCE



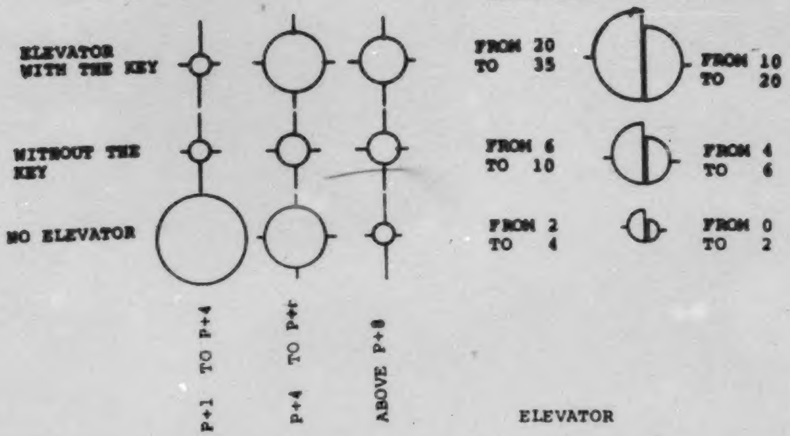
BUILDING GRAPH. 7



STAIRCASE ILLUMINATION

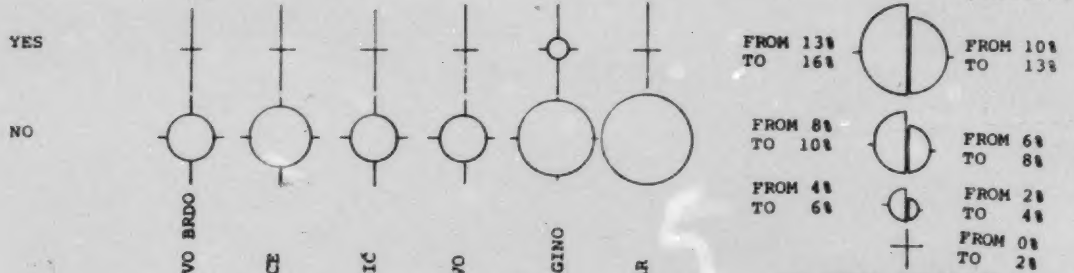


BUILDINGS GRAPH 9.



ELEVATOR

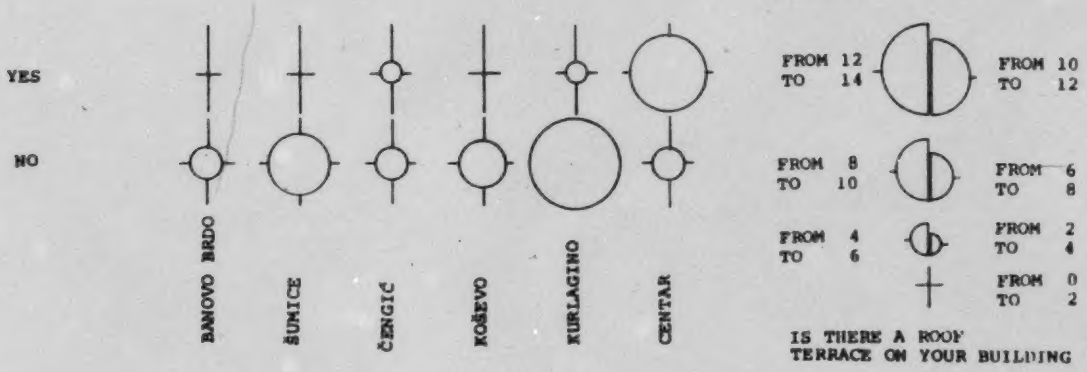
GRAPH. 10.



ARE THERE STAIRCASE PORCHES IN YOUR BUILDING

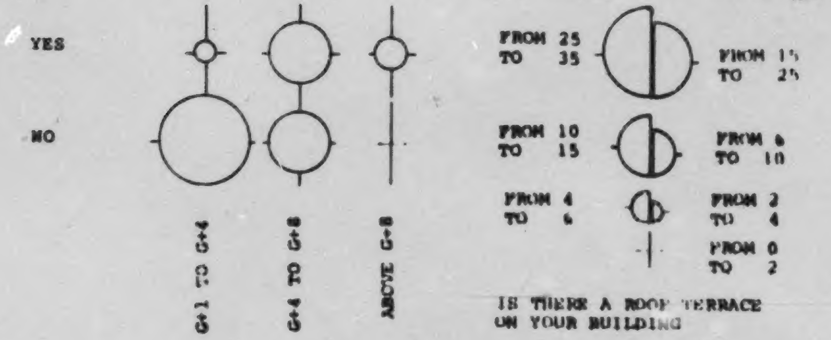
BUILDINGS

GRAPH 11



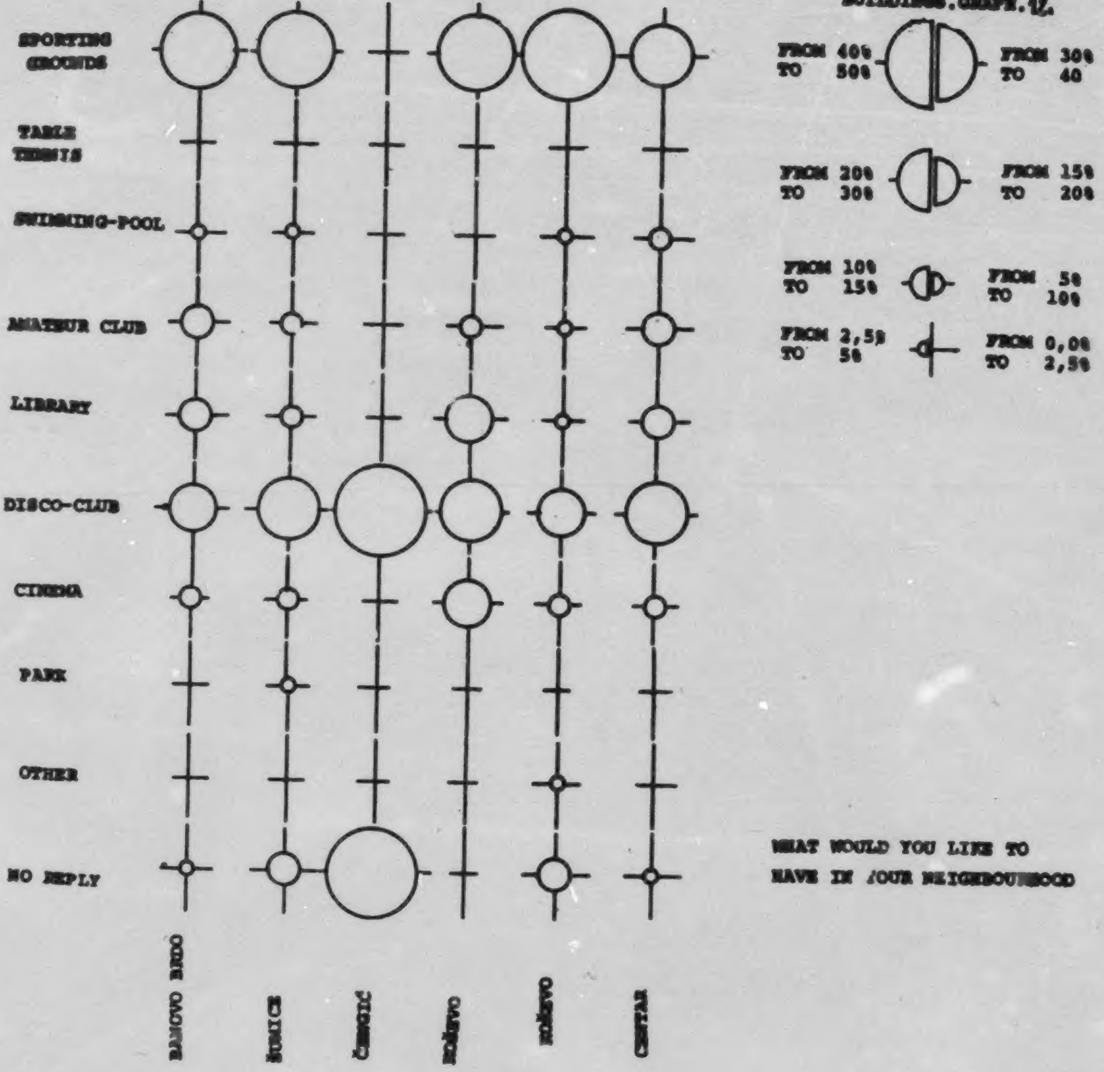
IS THERE A ROOF TERRACE ON YOUR BUILDING

BUILDINGS GRAPH. 11.a



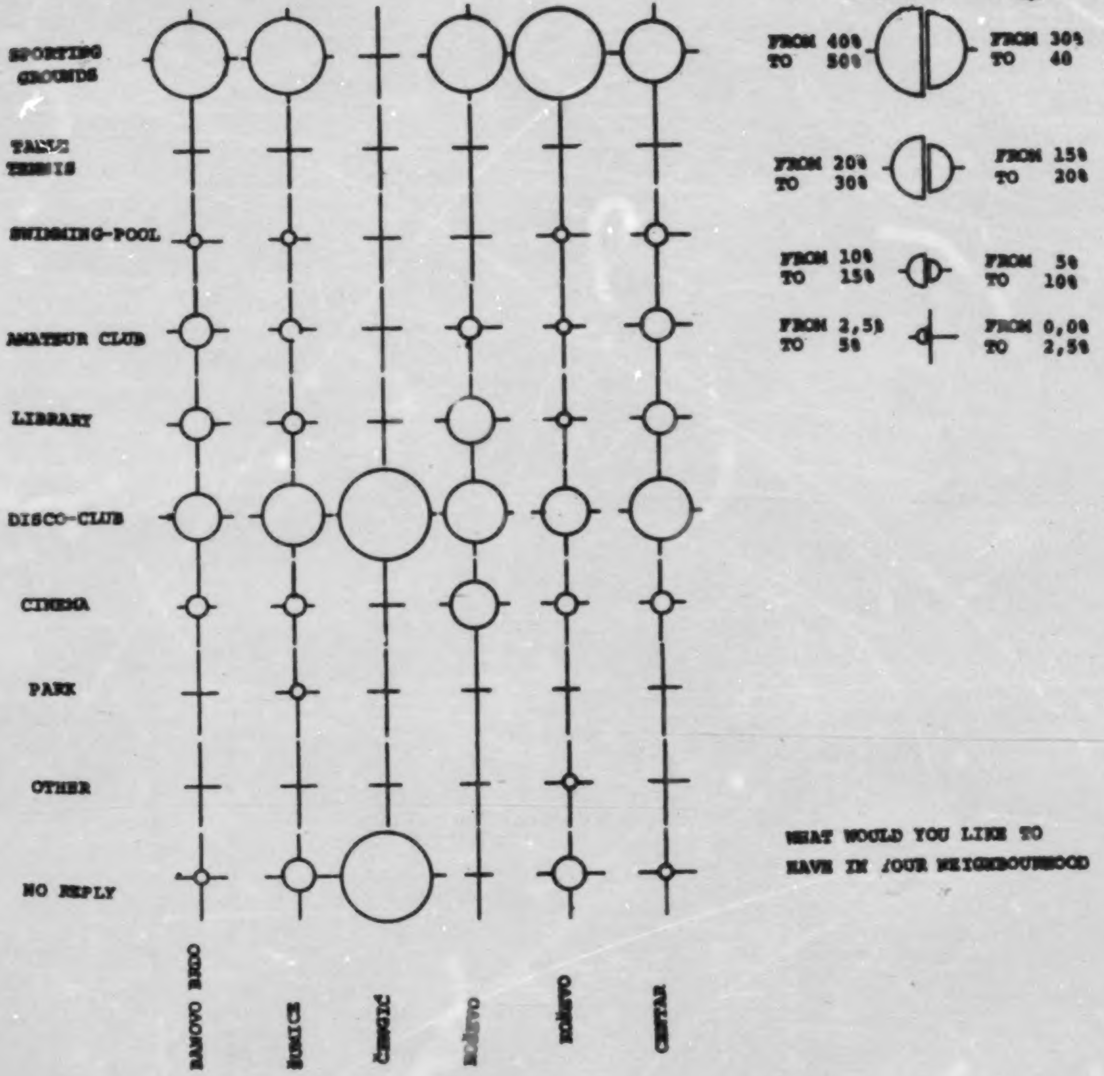
IS THERE A ROOF TERRACE ON YOUR BUILDING

BUILDINGS. GRAPH. 41



WHAT WOULD YOU LIKE TO
HAVE IN YOUR NEIGHBOURHOOD

BUILDINGS. GRAPH. 12



WHAT WOULD YOU LIKE TO HAVE IN YOUR NEIGHBOURHOOD

PART THREE: APARTMENT

1. General

1.1 Size Category

An analysis of the size of the sampled apartments shows that over half (58.1%) of the total number of apartments are two-room apartments.[1] The number of three and four-room and five-room apartments is very small. Similarly, there are very few efficiency apartments (2.1%). (Graph 1)

It is interesting to take a look at the size distribution of apartments by cities (Graph 1a).

- most of the efficiencies and one-room apartments are in Sarajevo --
- most of the two-room apartments are in Titovo Užice --
- the number of three-room apartments is almost the same in Belgrade and Sarajevo --
- almost all the larger apartments (three-room, four-room and larger) are in Belgrade (with the exception of a single three-and-a-half room and one four-room apartment in Sarajevo).

A comparison of the size categories of apartments in the two complexes in each city indicates expected regularities only insofar as the Sarajevo lower-standard development has relatively more small apartments. This is quite understandable -- larger apartments are more expensive and harder to obtain, despite the fact that families with smaller incomes are as a rule larger. (As Graphs 2 and 3 show, most of the five, six, and seven-member families are in Čengić Vila II where, according to Graph 1, there are the most efficiencies, one-room, and one-and-a-half room apartments, and where there is only one three-room apartment and not a single apartment larger than that.)

Graph 1b shows that most of the apartments in our sample are located in buildings of GF+4 to GF+8 floors.

1.2. Intensity of Space Utilization

We were interested in the adaptability of the apartment to the number of people living in it. Rejecting total floor area (or floor area per person) as a measure, we chose number of rooms as the best indicator of the possibility of privacy.

Paralleling the ´Cologne Recommendations,´ we established our index of space utilization as a correlation of the number of rooms and the number of inhabitants in the apartment. The Cologne Recommendations presuppose that except for efficiencies and one-room apartments, the living room is not used as a bedroom. It seems to us that this recommendation is overly strict for Yugoslavia, particularly in our large cities. Thus we corrected the index of space utilization, allowing for use of the living room for sleeping in smaller apartments (including two-room apartments -- see reference table). We considered the living room of apartments with more than two rooms to be so overloaded by its numerous other functions that it could not take on that of sleeping as well (except occasionally).

Reference table

	Rooms in the Apartment							
	Efficiency	1-rm	1.5-room	2-rm	2.5-room	3-rm	3.5-room	4 & more
Number of bedrooms	0	0	1	1	2	2	3	3 & more
Apartment residents	2	2	3	3	3	4	5	6 & more

sleep in the living room — do not sleep in living room

If the recommendation that the living room not be used for sleeping were respected, then the commonest-size apartment in our sample -- the two-room apartment -- would meet the needs of a childless couple, since it has but one bedroom. It could conceivably be used by a married couple with a baby of up to three years of age, which does not require its own bedroom and can sleep with its parents.

Only 38.5% of the families in our sample have only one child, and all these children are more than three years old (this being the lower age boundary for inclusion in this study).

Graph 2 shows that the commonest family size in our sample is the four-member family (50.5% of the total). According to our adjusted scale, this family would require a three-room apartment which, as Graphs 1 and 3 indicate, represent only 7.6% of our apartment sample.

There is an obvious variance between the number of people and the number of rooms in the apartments in our sample. What are the proportions of this variance? We attempted to make a correct determination using the most representative apartment size in our sample: the two-room apartment.

Our adjusted scale envisions a three-member family as corresponding to the spatial conditions of a two-room apartment. Proceeding from a unit floor area of 15m^2/person, we took as a guide a two-room apartment with a usable floor area of 45m^2, quite a modest standard. Critical overcrowding of the apartment would be reached when the number of inhabitants doubled, with unit floor area dropping below the critical limit of 8m^2. (The French Sociologist Chambard de Lauwe asserts that when per person floor area falls below this level and density reaches a critical limit, the family environment degrades socially and mentally.) We categorized a situation of four inhabitants in a two-room apartment as unsatisfactory, and five inhabitants as very unsatisfactory. In our sample, however, there are apartments in which the situation is critical, even by our adjusted criteria.[2] (Table 1)

The situation depicted in Table 1 is complicated by the fact that once one acquires an apartment, even if it is unsuitable, it is very hard to make an exchange.

Apartments Table 1

Apartment size category	Intensity of Space Utilization				
	normal 3-per.	unsatisfactory 4 per.	very unsatisfactory 5 per.	critical 6 persons	over 6 persons
Two-room	22.1%	55.3%	18.3%	2.6%	1.5%

More than half the respondents (748, or 62.3%) wished to change their apartments. When asked if they might be able to exchange their present apartment for a more suitable one, the great majority of respondents stated that they saw no such possibility (Graph 4). It is interesting that most of the negative answers were in the Belgrade development of Šumice, followed by Banovo Brdo (also in Belgrade), and then Sarajevo's Čengić Vila I.

Thus one can spend one's whole life living in the same apartment, which testifies to the proportions of the problem of overcrowding.

1.3. Overfurnishing

There can be no doubt that the apartments in our sample are generally overcrowded. A frequent accompaniment of overcrowding is the presence of too much furniture, which we attempted to confirm.

As might be expected, too much furniture is primarily a problem of small apartments. Most of the overfurnished apartments in our sample are one-room apartments. There are more overfurnished 2-1/2-room apartments than two-room apartments. There are few overfurnished three-room apartments, and there are no 3-1/2-room, 4-room, and larger apartments that are overfurnished throughout (Tables 2, 2a, 3, 3a).

We might add that the total number of apartments that are totally overfurnished is relatively small, which is encouraging, for living conditions in an apartment that is similtaneously overcrowded and overfurnished are very close to those of slum living.

Cross tabulating the phenomen of excessive furniture with the number of residents in the apartment (Table 4), shows that most of the totally overfurnished apartments are inhabited by four-member families while the problem of overfurnishing throughout the apartment does not obtain in the larger households (7, 8, and 9 members). One should keep in mind the fact that four-member families predominated in our sample, while families of seven members and more are not very common in our sample.

The number of apartments that are not overfurnished in the mutual opinion of an observer and tenant amounts to one third of our sample. Among the remaining two thirds of the apartments, the area cited as being the most overfurnished was the bedroom (24%). The most likely reason for this is that the bed is the bulkiest piece of furniture, taking up the largest amount of floor space of all home furnishings. Furthermore, the bedroom -- which guests are not likely to enter -- often serves as a kind of storage closet for everything the living room will not hold.

As it is difficult to separate the bedroom and living room into two distinct categories (because of the many small apartments in our sample), the best indicator of the most overfurnished areas of the apartment is the fact that in 41% of cases the total living-sleeping area is overfurnished in comparison to other areas of the apartment.

The most frequent incidence of overfurnished bedrooms was found in Sarajevo (Table 5) and particularly in Čengić Vila II (39.6%). Living rooms are also most overfurnished in Sarajevo, particularly the upper-standard development of Koševo.

Kitchens stuffed with furniture are a less frequent phenomenon than we had expected (13.5%). There is a degree of inequality in the distribution of this phenomenon among the apartment complexes: it was least frequently noted in Belgrade´s Šumice, and most frequently noted in Sarajevo´s Čengić Vila. In all the cities the lower-standard developments had more overcrowded kitchens. The explanation may lie in living habits and perhaps the existence of different types of kitchens (working vs. ´family´ kitchen) that encourage different usage patterns throughout the day (Table 5).

2. Elements of the Apartment

For our purposes here, we refer to spaces in the apartment as elements. Although they are not sharply delimited from the apartment as a whole, each one is treated separately, distinct from the general features treated under the preceding heading.

2.1 Children's Room

The investigators were to make a most careful study of the children's room, the smallest (and only) spatial unit in the apartment intentionally devoted to children's needs, but the size categories of the apartments in the sample thwarted our plans. More than half of our respondents live in two-room apartments (Graph 1), and in an apartment with less than two and a half rooms a children's room cannot exist as an independent spatial unit, nor can one room's furnishings be wholly suited to children.

According to the responses of parents, just over half the children in the sample have their own room[3] (Tables 6, 6a). The greatest incidence of children's rooms was recorded in Banovo Brdo (the Belgrade lower-standard complex), and the smallest incidence in Čengić Vila II, the lower-standard Sarajevo complex.

Broken down by age group, the youngest children are generally without a room set aside for children. This number declines with increasing age. The data represent a serious situation, however, taking into accountthe fact that half of the children of the youngest age group do not have a children's room (and children over three should not share a bedroom with parents). For the two groups of schoolage children that figure hovers around a quarter of the total number.

We attempted to test whether or not the lack of a children's bedroom was related to conflicts within the apartment (Table 7).

Apartments Table 7

Does your child child have a room ?		Total	Who bothers Whom?				
			they bother you	you bother them	each bothers the other	no conflict	no answer
Yes	F	243	20	23	9	189	2
	V	63.8	40.0	69.7	60.0	67.5	66.1
	H		8.2	9.5	3.7	77.8	0.8
No	F	136	30	10	6	89	1
	V	35.7	60.0	30.3	40.0	31.8	33.3
	H		22.1	7.4	4.4	65.4	0.7
No answer	F	2	0	0	0	2	0
	V	0.5	0.0	0.0	0.0	0.7	0.0
	H		0.0	0.0	0.0	100.0	0.0
Total	F	381	50	33	15	280	3
	H	99.0	13.1	8.7	3.9	73.5	0.8

Among the older school-age children reporting that there is no conflict in the family, two thirds have a room of their own or a room shared with siblings. Among the children who state that others bother them, three fifths live in an apartment without a children´s bedroom.

In the cases where there was a children´s room, we attempted to determine the degree of participation by children in (a) choosing the room to be used, and (b) deciding on furnishings and decoration.

In all cases in which a children´s room existed, the parents themselves assigned it to the children. Our assumption that parents usually give children the smallest room (because of the widespread belief that a small creature deserves a small space) was completely confirmed -- the number of those giving the child (children) the smallest room in the apartment was four times greater than the number of those who gave children the largest room (Table 8). The residents of Banovo Brdo lead in this respect. There are no notable differences among the apartment complexes with respect to giving a child (children) the largest room, but most of such cases are in Kurlagino Raskršće (Titovo Užice´s lower-standard complex). There can be no doubt that in cramped living conditions it is difficult to make any sort of distribution of space, let alone a meaningful one.

The fact is that the most deprived age group in the apartment is the very one that is the most in need of space, for this age group is unable to use space in a rational way (children between 3 and 7). We did not test whether the parents assigning the smallest room to children were those with very young children, but we assume that this is so. This is the same situation as with the distribution of apartments, for the assumption is that the growth process is accompanied by an increasing need for space. (In our opinion this is correct up to puberty, when a sharp change occurs -- the child seeks smaller, better-equipped spaces.)

Most of the parents (something more than four fifths) fixed up the children´s room in accord with their own ideas and tastes. The largest number of such cases was in Banovo Brdo, and the fewest in Čengić Vila II, but in the latter complex this was the only answer, the only procedure followed by parents (Graph 5).

Although the second response in frequency, the number of statements that the parents had decorated the children´s room in agreement with the children amounted to just a bit more than a tenth of the number of replies stating that the parents had decorated the children´s room according to their own ideas.

The least frequent response was that the parents had sought the advice of someone outside the family. It was the parents from Belgrade, the largest city, who more than others resorted to reading books or asking others for advice.

We cross tabulated the behavior of parents with the age of children. The purpose of this was to get a better idea of what decorating the children´s room means to parents and how much account is taken of the attitudes and desires of children to contribute themselves to the arrangement of that part of the apartment environment that is assumed to belong to them and to protect their privacy. From the foregoing table we drew the conclusion that most parents had decorated the children´s room as they themselves wished. Table 9 shows that most of the parents within this category had school-age children -- i.e. children between 7 and 11 -- with whom discussion about decoration is quite possible. The number of those who took the child´s wishes into account, as we have already mentioned, is about one tenth of the sample, and the distribution by age groups is completely predictable -- most of the children who d decided -- or, to be more precise, participated in the decision -- on decoration were in the older school-age group.

We investigated the correlation between parental educational status and how parents made the decisions about the decoration of the children´s room. We assumed that conditions in Yugoslavia dictate that the decoration of the children´s room is primarily the mother´s concern, and that her influence in the choice of furnishings is more decisiive than the father´s, so that behavior in arranging the children´s room was cross tabulated with the mother´s professional/vocational training.

Since the number of mothers in the various categories of professional /vocational training were far from equal (the largest group of mothers, more than a third of the respondent families, have a high-school education), we were unable to make comparisons between groups. But we were able to draw some conclusions on the basis of cases from within each group.

Among the families in which the mother has a high-school education, the greatest number of mothers (more than four fifths of the total) equipped the children´s room according to their own taste. Furthermore, only one tenth of these mothers took the wishes of the child into account (Table 10).

The highest percentage of families (mothers) decorating the children´s room without consulting the child occurred among mothers with the status of skilled worker, while that percentage was lowest among mothers who had completed two-year college courses.

It is somewhat surprising, that with respect to consulting the child, the mothers with unskilled-worker status take the lead. Even more amazing is the figure, from the same table, indicating that the practice of consulting the child about the decoration of his room is least developed in the next highest educational category -- that of skilled worker.

2.2 Children´s Favorite Place in the Apartment

The basic purpose of searching for favorite spots was to discover whether that spot coincided with the children´s room, as a clearly defined functional space. The gap between the number of rooms and number of people in the apartment, the lack of children´s rooms, and everything else mentioned about the apartment greatly reduced the meaning of looking for children´s favorite place in the apartment. The choice available to the child is altogether restricted. Our investigation thus confined itself to testing the following:

(1) the need of young children (3 to 7) to seek out a subarea in the apartment, either by making use of hideaways (the space between pieces of furniture and the floor) or climbing into the furniture itself:

(2) the tendency of older children (7 to 11 and 11 to 14) to play alone or with others:

(3) observations of parents about the child´s preference for some particular spot in the apartment.

The assumption of the investigators was that if children hide under or behind pieces of furniture their behavior is a response to the spatial inadequacy of their daily physical environment and the lack of privacy in the apartment. Both the one and the other may exist in large and in small apartments, as the attempt to find refuge from the overabundance of images that an unfamiliar world daily showers upon the very young.

Something more than a third of the parents of children of the youngest age group did not observe that their child sought out some sort of special corner for themselves (Graph 6).

All the other parents (about two thirds) gave a positive answer to this question, which shows that the phenomen is quite widespread.

In the Belgrade lower-standard apartment complex, the phenomenon is most evident, while in Sumice, where the phenomenon is least evident, about half of the children seek out a special corner.

The dining table is the main gathering place in the apartment. A young child of three or four may be present but can only partilly participate physically in the get-togethers. Five-year old boys are 105 cm tall. In their third and fourth years children barely reach the edge of the table. For a child of this age, aside from all the psychological implications, the use of the space under the table -- whose "roof" is the object of interest to adults -- is proportioned to the child and is thus more inviting to him. The following answers relate to the pieces of furniture which children use to create subareas for themselves. (See Table 11).

The phenomenon does not reveal a great deal of variation by sex, as one might expect given the age of the children.

We tested whether it is only the older children who play alone because the youngest age level turns naturally toward isolated rather than group play. It is only in school, when socialization becomes inevitable, that the tendency to play alone may be considered a symptom of a difficulty in communicating. Naturally, the data in Table 12 represent only the impressions of parents, and for more profound investigation one would need to isolate the phenomenon and test it in a much smaller sample.

Apartments Table 11

When playing, where does your child like to hide?		Total	Sex of Child	
			Male	Female
Behind the door	F	100	48	52
	V	18.02	17.08	18.98
	H	100	48	52
Under the table	F	150	77	73
	V	27.01	27.40	26.64
	H	100	51.3	48.7
Under the bed	F	86	49	37
	V	15.5	17.44	13.50
	H	100	57.0	43.0
Behind the wardrobe	F	46	17	29
	V	8.3	6.05	10.58
	H	100	37.0	63.0
In large boxes	F	13	7	6
	V	2.34	2.49	2.19
	H	100	53.8	46.2
Not noticed any of these	F	160	83	77
	V	28.83	29.54	28.11
	H	100	51.9	48.1
Total	F	555	281	274
	H	100	50.6	49.4

Something more than a fifth of the school-age children are inclined toward isolated rather than group play. This figure seems significant to us. Unfortunately, we do not know whether these are primarily older or younger school-age children, and whether they are largely only children (the figure in Table 12, however, does correspond to the percentage of single children in our sample and the percentage of older school-age children who report that they stay home alone).

The phenomenon cannot be said to evidence great variation by residential complexes, although the Belgrade complexes have the greatest number of children who play alone (over two fifths of the total number of children). One might perhaps suggest, on the basis of this data, that big-city children are more withdrawn.

Although, as we have noted, the size limitations of apartments makes the study of the child´s favorite space in the apartment futile, we have some comments on the tables which relate to this problem.

Table 13 indicates that when there is a children´s room it is the child´s favorite place in the apartment. Next in order, as expected, is the living room, the area where most things happen, as this is the room for household communication. The kitchen is favored over the parents´ bedroom (Table 13a).

According to the parents, almost a fifth of the children have no favorite place in the apartment.

The fewest children found their favorite place in the children´s room in two lower-standard apartment complexes (Čengić Vila and Kurlagino Raskršće) while both Belgrade developments lead in this respect. The largest group who select the kitchen as their favorite space are to be found in Čengić Vila II, and in each of the cities there are more children who like the kitchen among those from the lower-standard complex than from the higher-standard one. The largest number of children who are indifferent, who have no clear preference for any particular place in the apartment are in the Užice lower-standard complex, while the fewest are in the Sarajevo lower-standard complex.

As with the decoration of the children´s room, we wished to find out the extent to which the child himself chose his favorite place. In most cases (more than three quarters of the total number) (Table 14) the children themselves chose their favorite places in the apartment. This phenomenon shows very little variation by apartment complex, although one may note that in KUrlagino Raskršće the percentage of children who made this decision on their own is highest, and in both Belgrade complexes it is lowest.

As might be expected, in utterly restricted housing conditions, it is the parents who decided on the children´s "favorite" place. The number of parents in efficiency apartments who chose the child´s usual play space rises to nearly a quarter of the total possible number. This is only natural, for not even the parents have a great deal of choice, otherwise they would not be in an overly small apartment. Aside from this, there are no clear patterns to be seen -- an equal number of parents (about a fifth) in the

2-1/2 and 3-1/2 room apartments decide on their child's favorite place in the apartment.

2.3. Children Without Own Room

The fact that a large num-er of the children live in apartments without a children's room obliged us to find out where the child without his own room spends the most time during the day.

Čengić Vila II leads in the number of children without their own rooms and has the largest number of children who spend time in the kitchen. The smallest number of children who -- in the absence of their own room -- spend time during the day in the kitchen was noted in Šumice, the higher-standard Belgrade complex.

Judging by their answers, children rarely compensate for the lack of a room by spending time outside the home. The largest number of such cases was in Kurlagino Raskršće, while in both Belgrade complexes there is not a single such case to be found. Most children who spend the day outside the home are in the preschool category, which is only natural as they have no lessons to prepare, a task which must necessarily be done at home. (More will be said on this in the commentary on neighborhood open spaces and play areas.) It is a serious problem, however, that nearly a quarter of the total number of school-age children (46.8% in all) spend their time in the kitchen, where they certainly lack the conditions to organize their work and where it is not possible to set up their own corner to house typical child equipment.

Cross tabulated with the number of rooms per apartment , data on the area where the child -- in the absence of his own room -- spends the greater part of the day, indicates the following.

- It is only in one-room apartments that most children prefer the kitchen to the bedroom and living area. As we have seen (Graph 1a) such apartments predominate in Čengić Vila II.
- As is only logical, the highest percentage of children who spend time outside the apartment live in efficiencies (although the number of such apartments in our sample is insignificant), while there are no cases of children without their own room in the three-room and larger apartments.
- Whenever space permits, parents isolate children in special parts of the apartment. The lack of children´s rooms cannot be explained by anything other than necessity.

2.4. Study Area

Although it is a barrier to the normal flow of activity in the apartment, the absence of a children´s room is easier to endure in familie with preschool children. For the child starting school means not only a new, crucial social situation (partial and periodic abandonment of the primary group, entry into a broader social environment), but also is the occasion for the formation of the first serious work habits and the first attempt at rational organization of space and time. In the context of the apartment, this means the accretion of a new function.

We attempted to find out whether a school-age child had a favorite work area in the apartment where he does his homework and performs other tasks.

Since we expected overcrowding in the apartments, and this assumption was confirmed, we inquired about the "work areas" used by children, intentionally not specifying whether this meant a room, a part of a room, or a special piece of furniture. Nearly a quarter of all the schoolchildren have no clearly defined workspace in the apartment (and most of these children are from one-room apartments). The children's room, when there is one, is used not only for sleeping and playing, but also for studying. (Table 15)

There are 482 children in the 7-14 age group who have their own room (77% of all children with their own room). Thus, of the total number of 7-14-year olds (780), 61.5% of these school-age children have their own room.

The largest number of children without a regular work area in the apartment is in Banovo Brdo (Table 15a). Most of the children who work in the children's bedroom live in Šumice, and the largest number of those who do their homework in the kitchen live in Kurlagino Raskršće and in Čengić Vila II (both developments of lower standard). It might be said that the children in lower-standard apartment developments are more spatially disadvantaged with regard to their first working habits.

Nearly three tenths of the total number of children have neither a regular work place in the apartment nor even a table to use. A most interesting fact from Tables 15b and 15c is that the largest group of children who have no regular work area in the apartment (more than one third) do their homework outside the home. We assume that they work either at after-school daycare or in the homes of friends. We believe that a comparative study of children with and without regular work areas at home -- a deeper and more focussed study than this one -- would reveal many facts important for teachers and psychologists, and for designers as well. We are thinking of a study similar to a comparison of two categories of preschoolers -- those who attend daycare centers and those who do not.

The second largest group of those without their own room do their homework in the kitchen.

It is interesting that the favorite place of all for doing homework in the home is the living room, and the least favorite is the children's room, which confirms our assumption that children like the space in the home where the most goes on.

3. Children's Furnishings in the Apartment

Aside from home furnishings as such, children's furnishings represent an important element of home equipment -- the most important for the purposes of this study. It is not the function of a piece which distinguishes it as children's furniture, but primarily its size. (Other characteristics, such as solidity, ease of handling, safety, texture, and color, did not fall within the bounds of this generalized study.)

As one might expect, furniture in the children's room was specially made in only 49 cases (4.2% of the total sample). Special children's furniture was most in evidence in the Belgrade complex of Šumice, and was consistently more in evidence in the higher-standard residential complexes than the lower. Furnishing the children's room (if it exists) with children's furniture is the better method, but the more expensive and -- most crucially-- is not the quickest method, and parents always are very much concerned to outfit their child as soon as possible.

The largest group of parents by far equipped the children's room with standard furniture (tables, chairs, beds) designed for adult dimensions. This may in part be explained by the underdevelopment of the children's furniture industry in Yugoslavia (the first complete sets of children's furniture appeared in 1969), and also in part, probably, by the desire of parents to solve the problem 'once and for all,' by buying a set of furniture whose dimensions were suited to adult proportions.

We attempted to determine how many apartments had furnishings suited to the age of the child. We performed some simplification by categorizing the bed, table, and chair as the most important pieces of equipment (Table 16).

Apartments Table 16

Bed dimensions		Total	Age of Child 3 - 7	 7 - 11	 11 - 14
2 m long adult size	F	1,050	302	392	356
	V	87.4	70.1	95.4	99.2
	H	-	28.8	37.3	33.9
less than 2 m. (child size)	F	151	129	19	3
	V	12.6	29.9	4.6	0.8
	H	-	85.4	12.6	2.0
Total	F	1,201	431	411	359
	H	100%	35.9	34.2	29.9

Our data show that nearly three quarters of the children aged 3-7 have adult-length beds. On the one hand that confirms the tendency of parents to resolve the problem of the bed once and for all since the child will in any case grow into it. At the same time, a normal-length bed may be used for naps by adults when the child is not there, which is sensible, given the overcrowded conditions. While this is an advantage for adults, it is gained at the expense of children.

It is interesting that we noted more cases of children's tables than chairs, although one might expect that these two pieces of furniture go together, and in any case that chairs would be more common than tables. The phenomenon likely may be explained by the fact that a normal-height chair is proportioned to the height of the dining table, around which the family most often gathers, and therefore -- as far as family relationships are concerned -- the dining table is much more important than the child's table. (Table 17)

Most of the families in which the child has a desk live in Koševo. Howev er, within that residential complex, less than half of the total number of children have a desk. By far the fewest children's desks are to be found in the Titovo Užice complexes, and it is quite strange that there are fewer in Kurlagino Raskršće than in the Centar district. The same holds true for children's chairs -- Koševo leads and the Centar district has the fewest number.

The furnishings of the children's room -- as Table 18 shows -- are in most cases restricted to the things the child 'inherits.'

Only a third of the respondents bought new furniture for the child. Among the cities, Belgrade led in new furnishings.

It is possible to draw some conclusions about children´s furnishings indirectly, by comparing children´s furnishings with the living room furnishings.

Apartments Table 18

Age of furnishings in child´s room		Total	Belgrade		Sarajevo		T. Užice	
			Banovo Brdo	Šum.	Cengič vila	Koš.	Kurl. Raskr.	Cent.
New	F	358	86	58	68	49	50	47
	V	31.0	44.6	30.7	34.3	24.0	25.6	26.7
	H		24.0	16.2	19.0	13.7	14.0	13.1
three plus years	F	718	100	118	114	122	142	122
	V	62.2	51.8	62.4	57.6	59.8	72.8	69.3
	H		13.9	16.4	15.9	17.0	19.8	17.0
NO answer	F	79	7	13	16	33	3	7
	V	6.8	3.6	6.9	8.1	16.2	1.5	4.0
	H		8.9	16.5	20.3	41.8	3.8	8.9
Total	F	1,155	193	189	198	204	195	176
	H	96.2	16.7	16.4	17.1	17.7	16.9	15.2

3.1. Toy Storage

The investigators planned to study a special form of obstruction within the apartment -- problems with the storage of toys.

The primary reason for a negative answer to the question, "Does the storage of toys representa a problem in your apartment?" could not be established in a study of this kind because it is conceivable that the reason might be an absence of toys. This might be the result of various factors -- financial status, or the child being at an age at which toys no longer represent the center of interest. Thelack of toys, on the other hand, does not mean that the child does not play, nor does it in itself represent a negative phenomenon. It is similarly possible that in certain cases -- where there are toys -- they are not particularly bulky. Regardless of the foregoing, however, the problem was present in more than half the total number of efficiencies and 1-1/2 room apartments, while in one-room apartments approximately the same number think that toy storage does and does not represent a problem (Table 19a). As might be expected, with increasing apartment size, the severity of this problem declines. Although overcrowded, two-room apartments are not inconvenient for toy storage according to the statements of the tenants and the observations of an architect.

When replies to this question are cross tabulated with residential complex, no strong pattern emerges. The largest number (by a small margin) of those who see a problem in toy storage live in Koševo, and the largest number of negative replies came from Banovo Brdo.

In conclusion one notes that whether it is a consequence of too much furniture and overcrowding, the architectural faults of the apartment, or the unsuitability of the furnishings for the spatial environment -- obstruction of the apartment is evident and indisputably affects the manner and intensity of space utilization by children. The consequences are most felt by 3-7-year olds -- the age level at which motor development is most intense, when the child is most in need of space, and when the process of body-eye-mind coordination is developing.

4. Apartment Balcony/Loggia

There can be no doubt that a balcony or loggia is no real substitude for contact with the ground, greenery, and everything else that may attract a child around the outside of the building. It is obvious as well that no apartment loggia can make up for cramped living conditions. We attempted to test this skepticism concerning the usefulness of a loggia or balcony (such as they were in the sample -- usually no wider than one meter) for children's play. Our doubt was related to the spatial adequacy of these almost invariably narrow spaces and to the frequency of use, for we assumed that parents are fearful of possible accidents if the child is out alone on the balcony or loggia.

We believe that in order to test the real usefulness of the loggia (balcony) we would have to study the youngest age group (3-6) because --

1. these children cannot leave the apartment alone --
2. they are the most lavish consumers of space, lacking even a basic idea of how to use it rationally --
3. they are most subject to accidents, for the sense of height, size, and depth perspective is acquired through experience. (It is a common misconception that these characteristics are inborn, that a child instinctively reacts to these qualities of space.)

Almost a quarter of the preschool children are forbidden by their parents to go out alone onto the loggia or balcony. We consider this number to be quite high, particularly if one takes into account the fact that the largest group of apartments in our sample are not located above the fourth floor. (Table 20)

In a tenth of the apartments with loggias, the loggias are obstructed by bulky articles. This testifies to the lack of proper space for storing bulky articles in the apartment. Furthermore, we believe that it prevents the use of the loggia by the child, both by reducing the already limited available space and by increasing the danger that in climbing on the bulky items the child will fall over the railing. Although the table reveals the expected correlation between the ban on the balcony and the child's age, there is a far from negligible number of parents who make the balcony out of bounds even to school-age children (from 7 to 11).

Apartments Table 20

Permit child to go out on balcony alone		Apartment floor					
		Total	ground floor	1 - 4 floors	5 - 8 floors	Above 8	No Answer
No	F	90	6	55	17	5	7
	V	10.9	8.8	10.0	12.0	16.7	22.6
	H		6.7	61.1	18.9	5.5	7.8
Yes	F	728	61	494	124	25	24
	V	88.7	89.7	89.6	88.0	83.3	77.4
	H		8.4	67.9	17.0	3.4	3.3
No fixed opinion	F	3	1	2	0	0	0
	V	0.4	1.5	0.4	0	0	0
	H		33.3	66.7	0	0	0
Total	F	821*	68	551	141	30	31
	H	100%	8.3	67.0	17.2	3.7	3.8

* 821 (68.4% of 1201) -- total number of families whose apartments have balconies or loggia.

Apartments Table 21

Permit child to go out on balcony alone -----		Total	Age of child		
			3 - 7	7 - 11	11 - 14
No	F	90	66	19	5
	V	10.9	23.2	6.8	1.9
	H	100.0	73.3	21.1	5.6
Yes	F	728	216	259	253
	V	88.7	76.1	92.8	98.1
	H	100.0	29.7	35.6	34.7
No fixed opinion	F	2	2	1	0
	V	0.4	0.7	0.4	0
	H	100.0	66.7	33.3	0
Total	F	821*	284	279	258
	H	100.0	34.6	34.0	31.4

*821 (68.4% of 1201) -- total number of families whose apartments have balconies or loggia.

5. Relations in the Home

In investigating the consequences of cramped living conditions, we were guided by the following:

1. It is possible that the apartment is objectively confining, and that the physical inadequacies are unambiguously evident and demonstrable by normal instruments of measurement.
2. It is impossible for the apartment not to be objectively confining and for the household to nevertheless feel that it is, because of (a) differing, noncoinciding interests (generational or individual), or (b) the psychological make-up of persons who tend to feel claustrophobia.

These variables exist in several combinations: both may exist, or only one. A feeling of confinement may have both physical and psychological roots (it may be a true feeling even if the individual has imagined it).

We attempted to evaluate the consequences of spatial restriction in an indirect manner by studying --

(1) Parental tolerance of children´s play --

(2) Children´s reports of who bothers whom at home (whether they bother their parents, or their parents them) --

(3) Conflicts among children because of crowded conditions --

(4) Neighbors´ comments regarding the behavior of children.

Parents were questioned about their tolerance, their children´s conflicts because of space limitations, and the comments of neighbors on the behavior of their children. These questions practically invite ´improving´ upon reality, and thus the indirectness of this data does not permit us to cross tabulate the behavior of residents with spatial restrictions. Yet one can obtain some sort of impression from each of these sources individually about the two aspects of this phenomenon -- the physical and the social. The fact that on the one hand there is a cramped, crowded space, and on the other hand two differing fields of interest, or -- more broadly -- differing age-level interests among children themselves (brother and sister) and between children and parents, complicates the problem considerably. Nevertheless it remains a very interesting problem for study on another occasion, with a reduced sample.

5.1. Parental Tolerance of Children´s Disorder

The larger the apartment, the less tolerant the parents are of the noise and disorder their children make. Obviously, in an efficiency or one-room apartment parents are not in a position to forbid children to play where parents work, relax, or entertain guests. In larger apartments family isolation is greater.

According to our findings, parents are less tolerant of their children´s playing when there are guests in the home. Most parents (four fifths of the total number) permit their children to invite their friends into the apartment. However, there is a very pronounced, positive correlation between permissiveness about inviting friends into the apartment and the size of the apartment. A small apartment is a barrier to the natural socialization of the child: for many children, relations with their playmates stop at the apartment entrance.

We assumed that there would be a positive correlation between the spatial inadequacy of the apartment and the permissiveness of parents regarding children visiting the apartments of their friends. The assumption was that the parents would thus spend their free time more peacefully in their cramped apartments. However, the situation is just the opposite -- there are twice as many parents with smaller apartments reporting that they forbid their children to visit the apartment of friends than there are with larger apartments. It is quite possible that this data is biased, as there are not nearly as many families living in apartments with more than three rooms as there are in smaller apartments, and so absolute comparisons are not possible.

5.2. Children on Conflict with Parents

Nearly three quarters of all older school-age children (11-14) report that no one bothers anyone in the apartment (Table 22).

Where conflict is reported, the largest group of children (more than a tenth of the total number) believe that it is others who bother them. The largest number of ´rebellious´children are to be found in Čengić Vila, the Sarajevo lower-standard complex where we found the greatest incidence of cramped conditions and where the correlation between the number of rooms and the number of residents per apartment was generally most unfavorable. It seems to us quite natural that this age group should blame others for conflict in the apartment and in the family. This is an age at which every child, to a greater or lesser extent, justifiedly or not, believes that his parents stand in the way of his growing independence and do not sufficiently acknowledge his maturity. In the section that offers commentary on the willingness of children of this age level to go out in their spare time with their parents this phenomenon is even more drastically evident, and more will be said about it at that time.

Cross tabulated with apartment size, the statements of older school-age children (from 11 to 14) about family conflict in the apartment (Table 23) indicate that in all the apartments (of whatever size) a preponderance of children think that no one bothers anyone else.

Unfortunately, since only one age level answered this question, we have a good picture only of children from two-room, 2-1/2, and one-room apartments, which are most typical of the sample: the other figures are too small and unreliable to draw conclusions. The overcrowding of two-room apartments mentioned earlier does not figure in the replies of children concerning family conflict.

However, with increasing apartment size the number of children reporting that there is no conflict in the apartment increases. (One half of those in one-room apartments make this assertion, over two thirds in two-room apartments, and about three quarters in 2-1/2-room apartments.)

As the number of rooms in the apartment increases, the number of people in the apartment increases as well (as does the number of different personalities at various age levels, with varying interests and habits), and thus we attempted to test whether there was any causal relationship between the number of people and the frequency of conflict.

In families of from two to seven members, more than half the children reported that no one bothered anyone else at home. The highest percent of children reporting conflict was noted in six-member families, and then in four-member families. The largest group of boys and girls who feel threatened by these misunderstandings was also noted among the six-member families. Unfortunately however, the total number of older school-age children from six-member families was not large enough to draw reliable conclusions (the largest number of six-member families was found in Čengić Vila, the Sarajevo lower-standard complex).

Stated in terms of percent, the fewest family conflicts were noted in the case of children from three-member families.

There are practically no broken homes in our sample.

Most of the single children state there is no conflict in the home.

Table 24 shows that most older school-age children prefer spending time in front of the building to spending time at home. This table also indicates that the largest group of those reporting that their parents bother them spend the most time in front of the building.

Concerning younger school-age children we note that while most of the older children succeed in achieving harmony with the adults in the home, only a small number (something more than a fifth) of the younger school children (from 7 to 11) believe that no one bothers anyone within the apartment (Table 25).

On the other hand, nearly half of the total number of children between 7 and 11 believe that they bother other people in the apartment. Given the fact that a child at this age has still not mastered the mechanisms of thinking, these statements may merely represent repetitions of criticisms voiced aloud by parents in the presence of children, or they may represent the feelings aroused by the behavior of parents. In either case however, this figure is startling. Although differences among the residential complexes are not large, the largest group of children holding this opinion was found in Koševo.

We particularly attempted to determine whether the feeling of most children between 7 and 11 that they bother other people in the apartment is connected with the inclination either to play inside or outside the apartment (Table 26).

What is most evident is that children of this age level showed a marked inclination toward outdoor play, with more than three quarters of the young respondents stating their preference for it. Similarly we established that the inclination to play outside is most marked among the group of children who remarked that they represent a nuisance to others, although a great liking for outdoor play was evident among all other groups, including the group which reported that there was no conflict in the home.

In demonstrating this coincidence, we certainly do not mean to imply that we have located the real cause, because the reasons for liking the out-of-doors may be numerous (change and novelty, fear of being at home alone, unfavorable social climate in the family, a lack of space in the apartment, and so on). The marked preference for open space represents to us an indication that children of this age seek elbow room for their activities, and that motor activity is typical of this age group, as are games with rules. The section on fears will present a more complete picture of this situation.

5.3. Parents on Conflict Between Children

A large number of parents with more than one child report that there are no conflicts between the children because of cramped living conditions (Table 27). Nevertheless, the number reporting conflict is significant and is particularly high in Čengić Vila II, where we noted the highest negative discrepancy between actual and desired spatial environment. Perhaps signs of aggressivity can in part be explained by this discrepancy.

Cross tabulated with apartment size, the phenomenon of child conflict is particularly in evidence in smaller apartments (efficiencies, one-room, and 1-1/2-room apartments), which is only to be expected given the fact that in most of Europe a two-room apartment is inhabited by two adults, or at the most by a married couple with one small czild under three years old (Table 28).

Cross tabulated with the number of residents in the apartment, the expected pattern again emerges. Five- and six-member families are more apt to believe that the cause of child conflict in their homes is cramped living conditions (Table 29).

We expected that the fact of overcrowded and overfurnished apartments would cause residents to adjust space to the needs of the family. However, only about one tenth of the sample had attempted to rearrange their apartment. Alterations were most frequent in Belgrade -- and particularly in the lower-standard apartment complex, Banovo Brdo. Unfortunately, we neglected to ask about the nature of the alterations, although it would certainly be interesting to find out whether there were cases -- and if so how many -- in which residents had added a room to their apartments through making alterations.

Apartments Table 29

If there is more than one child, do your children fight among themselves because of cramped conditions in the apartment ?

			Number of residents in apartment							
		Total	2	3	4	5	6	7	8	9
Yes	F	373	1	11	235	98	21	5	0	2
	V		100	37.9	43.5	48.0	48.7	47.7	41.7	66
	H		0.3	2.9	63.0	26.4	5.6	1.3	0	0
No	F	457	0	18	303	104	22	7	2	1
	V	54.7	0.0	62.1	56.1	51.0	50.0	58.3	100	33
	H		0.0	3.9	66.4	22.8	4.8	1.5	0.4	0
Apt. not crampped	F	5	0	0	2	2	1	0	0	0
	V	0.6	0.0	0.0	0.4	1.0	2.3	0.0	0.0	0.0
	H		0.0	0.0	40.0	40.0	20.0	0.0	0.0	0.0
Total	F	835*	1	299	540	204	44	12	2	3
	H		0.1	3.6	64.7	24.4	5.2	1.4	0.2	0.4

*835 -- 69.6% of 1201 -- number of families with more than one child.

5.4. Children's Attitude Toward Apartment

Let us add a few words of interest about the relation between apartment size and the tendency of older school-age children to stay in the apartment or to go outside.

Somewhat more than a quarter of the boys and girls between 11 and 14 living in two-room apartments (the most frequent in our sample) spend more free time in the apartment than outside the apartment. We believe this is significant and that it testifies to an over-sensitivity in adolescence, a tendency to withdraw into oneself and into one´s ´own´ spaces. This may also testify to an absence of places of interest outside the apartment that attract children of this age (or may testify to the unattractiveness of the existing places) (Table 30).

Unfortunately, since this table involves the reaction of only the older age group (representing almost a third of the total sample), the smallness of the numbers does not permit us to draw reliable conclusions about the degree of correlation between apartment size and the child´s readiness to spend time in the apartment.

Earlier in this section we demonstrated that two-room apartments inhabited by three persons were just a bit more than a fifth (between a fifth and a quarter) of the total number of two-room apartments. As the number of broken homes in the sample is extremely small, one may assume that these apartments are inhabited by parents with an only child. Since the percentage of apartments with a normal residential density corresponds with the percentage of older children who spend their free time at home, it may be assumed that only children are more withdrawn in adolescence than other children. It remains for another study to test this out.

According to the same table, the school play ground proves to be a markedly unpopular place for older school-age children, probably because this is a period of resistance to supervision and authority, of which the school playground is a symbol.

The expectations of the investigators were largely borne out with the younger school-age children (between 7 and 11). More than two thirds of the total number preferred to play in front of and around the building rather than in the apartment (Table 31). As we expected, children in this age group -- beginners in school -- appear to need compensation for physical inactivity in school. This is a dynamic age level, and the habit of sitting and paying attention has still not been established.

PART THREE: TABLES

The apartment. Table 2

Number of rooms		Total	The most furniture jammed space in the apt.							
			Whole apt.	room	kitchen	bathroom	entrance hall	balcony	none	No reply
Efficiency	F	25	1	13	4	0	2	0	3	2
	V	11,8	9,1	11,2	9,1	0.0	33,3	0.0	13,6	16.7
	H	100	4,0	52,0	16,0	0.0	8.[illegible]	0.0	12.0	8.0
1 room	F	187	10	103	40	0	4	1	19	10
	V	88.2	90.9	88.8	90.9	0.0	66.7	100	86.4	83.3
	H	100	5,3	55,1	21.4	0.0	2.1	0.5	10.3	5.3
Total	F	212	11	116	44	0	6	1	22	12
	H	100	5,2	54,7	20,7	0.0	2.8	0.5	10.4	5.7

The apartment. Table 2a

Number of rooms		Total	whole apt.	living room	children's room	kitchen	bath-room	entrance	bal-cony	none	No
1,5 rooms	F	42	0	24	4	3	0	0	0	5	6
	V	5,7	0.0	8.6	9.1	3.1	0.0	0.0	0.0	3.7	4.4
	H	100	0.0	57.2	9.5	7.1	0.0	0.0	0.0	11.9	14.3
2 rooms	F	698	16	254	40	94	7	23	4	130	130
	V	94.3	100.0	91.4	90.9	96.9	100.0	100.0	100.0	96.3	95.6
	H	100	2.3	36.4	5.7	13.5	1.0	3.3	0.6	18.6	18.6
Total	F	740	16	278	44	97	7	23	4	135	136
	H	100	2.2	37.6	5.9	13.1	0.9	3.2	0.5	18.2	18.4

The apartment. Table 3

Number of rooms		Total	The most furniture jammed space in the apt.									
			Whole apt.	living room	parents' room	children's room	kitch.	bath.	entrance hall	balcony	none	No reply
2,5 rooms	F	137	7	35	33	9	10	0	4	0	31	8
	V	60.1	87.5	63.6	80.5	60.0	47.6	0.0	80,0	0.0	45.6	53.3
	H	100	5.1	25.6	24.1	6.6	7.3	0.0	2.9	0.0	22.6	5.8
3 rooms	F	91	1	20	8	6	11	0	1	0	37	7
	V	39.9	12.5	35.4	19.5	40.0	52.4	0.0	20.0	0.0	54.4	46.7
	H	100	1.1	22.0	8.8	6.6	12.1	0.0	1.1	0.0	40.6	7.7
Total	F	228	8	55	41	15	21	0	5	0.0	68	15
	H	100	3.5	24.1	18.0	6.6	9.2	0.0	2.2	0.0	29.8	6.6

3a

Number of rooms		Total	The most furniture jammed space in the apt.									
			Whole apt.	living room	children's room	other rooms	kitch.	bath.	entrance hall	balcony	none	No reply
3,5 rooms	F	6	0	2	0	1	0	0	0	1	1	1
	V	38.5	0.0	100.0	0.0	33.3	0.0	0.0	0.0	100.0	33.3	20.0
	H	100	0.0	33.3	0.0	16.6	0.0	0.0	0.0	16.7	16.7	16.7
4 rooms	F	8	0	0	0	0	0	0	0	0	2	4
	V	61.5	0.0	0.0	0.0	66.7	0.0	0.0	0.0	0.0	66.7	80.0
	H	100	0.0	0.0	0.0	35.0	0.0	0.0	0.0	0.0	25.0	50.0
Total	F	14	0	2	0	3	0	0	0	1	3	5
	H	100	0.0	14.3	0.0	21.4	0.0	0.0	0.0	7.2	21.4	35.7

The apartment. Table 4

Number of people in the apt.		Total	The most furniture jammed space in the apt.									
			whole apt.	living room	bedroom	child. room	entrance hall	kitchen.	balcony	bathroom	none	No reply
2 apt.	F	9	1	2	0	0	0	4	0	0	2	0
	V	0.7	2.9	1.0	0.0	0.0	0.0	2.5	0.0	0.0	0.9	0.0
	H		11.1	22.2	0.0	0.0	0.0	44.4	0.0	0.0	22.2	0.0
3	F	301	8	44	66	11	11	45	3	0	71	42
	V	25.1	22.9	21.3	22.9	17.5	30.6	27.8	50.0	0.0	31.0	25.0
	H		2.7	14.6	21.9	3.7	3.7	15.0	1.0	0.0	23.6	14.0
4	F	606	21	104	141	39	15	83	3	5	110	85
		50.5	60.0	50.2	49.0	61.9	41.7	51.2	50.0	71.4	48.0	50.6
	H		3.5	17.2	23.3	6.4	2.5	13.7	0.5	0.8	18.2	14.0
5	F	220	2	47	57	10	8	21	0	1	40	34
	V	18.3	5.7	22.7	19.8	15.9	22.2	13.0	0.0	14.3	17.5	20.2
	H		0.9	21.4	25.9	4.5	3.6	9.5	0.0	0.5	18.2	15.5
6	F	47	3	8	16	2	1	5	0	1	4	7
	V	3.9	8.6	3.9	5.6	3.2	2.8	3.1	0.0	14.3	1.7	4.2
	H		6.4	17.0	34.0	4.3	2.1	10.6	0.0	2.1	8.5	14.9
7	F	12	0	1	4	1	1	3	0	0	2	0
	V	1.0	0.0	0.5	1.4	1.6	2.8	1.9	0.0	0.0	0.0	0.9
	H		0.0	8.3	33.3	8.3	8.3	25.0	0.0	0.0	16.7	0.0
8	F	2	0	0	1	0	0	1	0	0	0	0
	V	0.2	0.0	0.0	0.3	0.0	0.0	0.6	0.0	0.0	0.0	0.0
	H		0.0	0.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0
9	F	3	0	1	2	0	0	0	0	0	0	0
	V	0.2	0.0	0.5	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	H		0.0	33.3	66.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	F	1	0	0	1	0	0	0	0	0	0	0
	V	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	H		0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	[illegible]
Total	F	1201	35	207	288	63	36	162	6	7	229	[illegible]
	V	100.0	2.9	17.2	24.0	5.2	3.0	13.5	0.5	0.6	19.1	[illegible]

The apartment. Table 5

The most furniture-jammed space in the apt.		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Cent
Whole apt.	F	35	5	5	5	2	2	16
	V	2.9	2.5	2.5	2.5	1.0	1.0	8.1
	H		14.3	14.3	14.3	5.7	5.7	45.7
Living room	F	207	34	38	36	46	23	30
	V	17.2	16.8	19.2	18.0	22.4	11.6	15.2
	H		16.4	18.4	17.4	22.2	11.1	14.5
Bedroom	F	288	23	23	114	42	49	37
	V	24.0	11.4	11.6	57.0	20.5	24.6	18.8
	H		8.0	[illegible]	39.6	14.6	17.0	12.8
Children's room	F	63	21	15	8	7	6	6
	V	5.2	10.4	7.6	4.0	3.4	3.0	3.0
	H		33.3	23.8	12.7	11.1	9.5	9.5
Entrance hall	F	36	6	3	2	12	0	13
	V	3.0	3.0	1.5	1.0	5.9	0.0	6.6
	H		16.7	8.3	5.6	33.3	0.0	36.1
Kitchen	F	162	29	17	30	25	31	30
	V	13.5	14.4	8.6	15.0	12.2	15.6	15.2
	H		17.9	10.5	18.5	15.4	19.1	18.5
Balcony	F	6	4	0	0	2	0	0
	V	0.5	2.0	0.0	0.0	1.0	0.0	0.0
	H		66.7	0.0	0.0	33.3	0.0	0.0
Bathroom	F	7	2	0	1	2	2	0
	V	0.6	1.0	0.0	0.5	1.0	1.0	0.0
	H		28.6	0.0	14.3	28.6	28.6	0.0
None	F	229	43	55	3	48	48	32
	V	19.1	21.3	27.8	1.5	23.4	24.1	16.2
	H		18.8	24.0	1.3	21.0	21.0	14.0
No reply	F	168	35	42	1	19	38	33
	V	14.0	17.3	21.2	0.5	9.3	19.1	16.8
	H		20.8	25.0	0.6	11.3	22.6	19.6
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

The apartment. Table 6

Does your child have the room		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskršce	Centar
Yes	F	626	151	138	54	90	86	107
	V	52.1	74.8	69.7	27.0	43.9	43.2	54.3
	H		24.1	22.1	8.6	14.4	13.7	17.1
No	F	575	51	60	146	115	113	90
	V	47.9	25.2	30.3	73.0	56.1	56.8	45.7
	H		8.9	10.4	25.4	20.0	19.65	15.65
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

The apartment. Table 6a

Does your child have a room		Total	Age		
			3 - 7	7 - 11	11 - 14
Yes	F	626	141	250	235
	V	52.1	33.5	63.3	61.0
	H		22.6	39.9	37.5
No	F	575	280	145	150
	V	47.9	66.5	36.7	39.0
	H		48.7	25.2	26.1
	F	1201	421	395	385
	H	100.0	35.0	32.9	32.1

The apartment. Table 8

Way did you give your child that room		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. raskr.	Cent
It is the smallest	F	224	59	70	26	27	18	24
	V	35.8	39.6	50.0	47.3	29.7	21.2	22.7
	H		26.3	31.3	11.6	12.1	8.0	10.7
It is the largest	F	52	9	6	10	6	11	10
	V	8.3	6.0	4.3	18.2	6.6	12.9	9.4
	H		17.3	11.6	19.2	11.5	21.2	19.2
Other	F	350	81	64	19	58	56	72
	V	55.9	54.4	45.7	34.5	63.7	65.9	67.
	H		23.1	18.3	5.4	16.6	16.0	20.
Total	F	626*	149	140	5[illegible]	91	85	10
	H	100.0	23.8	28.4	8.[illegible]	14.6	13.5	17.

*/ The number of apartments with children's room

The apartment. Table 9

Arranging children's ~~room~~		Total	Age		
			3 - 7	7 - 11	11 - 14
You asked for advice	F	18	5	7	6
	V	2.8	3.4	2.5	2.6
	H		27.8	38.9	33.3
You read a book	F	28	9	11	8
	V	4.3	32.1	39.3	28.6
	H		6.2	4.0	3.5
You furnished it according to your own taste	F	544	128	238	178
	V	82.9	88.3	85.3	76.7
	H		23.5	43.8	32.7
You aksed your child	F	56	2	21	33
	V	8.5	1.4	7.5	14.2
	H		3.6	37.5	58.9
children's room needs no particular arrangement	F	10	1	2	7
	V	1.5	0.7	0.7	3.0
	H		10.0	20.0	70.0
	F	656*	145	279	232
	H	100.0	22.1	42.5	35.4

*/ More then one answer was allowed

The apartment. Table 10

Arranging your child's room		Total	Education of the mother								
			non-qualified	qualified	high qualified	primary school educat.	secon. scholl educat.		2 years of college	B.A and above	No reply
You asked for advice	F	18	1	0	0	1	8	2	6	0	0
	V	2.7	2.4	0.0	0.0	1.0	3.2	4.3	4.9	0.0	0.0
	H		5.5	0.0	0.0	5.5	44.4	11.1	33.3	0.0	0.0
You read a book	F	28	1	0	1	1	9	6	8	0	2
	V	4.2	2.3	0.0	8.3	1.0	3.6	13.0	6.6	0.0	5.0
	H		3.5	0.0	3.5	3.5	32.1	21.4	28.5	0.0	7.1
You furnished it according your own taste	F	544	32	33	10	84	207	35	93	15	35
	V	82.9	76.1	14.3	83.3	84.8	84.5	76.1	76.8	93.7	87.5
	H		5.9	6.0	1.8	15.4	38.0	6.4	17.1	2.7	6.4
You asked your child	F	56	6	2	1	7	20	3	13	1	3
	V	8.5	14.3	5.7	8.3	7.0	8.1	6.5	10.7	6.2	7.5
	H		10.7	3.5	1.8	12.5	35.7	5.3	25.2	1.8	5.3
Child's room needs no particular arrangement	F	10	2	0	0	6	1	0	1	0	0
	V	1.5	4.7	0.0	0.0	6.0	0.4	0.0	0.8	0.0	0.0
Total	F	656*	42	35	12	99	245	46	121	16	40
	H		6.4	5.3	1.8	15.1	37.3	7.0	18.4	2.4	6.1

9/ The respondents were allowed more then one answer.

The apartment. Table 12

When playing your child preferes		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengič vila	Koševo	Kurlag. raskr.	Centar
To be alone	F	166	35	35	8	33	29	26
	V	21.3	25.9	27.6	7.0	23.3	21.6	20.5
	H		21.1	21.1	4.8	19.8	17.5	15.7
To be with others	F	433	70	59	76	93	58	77
	V	55.5	51.9	46.4	66.7	65.5	42.9	60.6
	H		16.2	13.6	17.5	21.5	13.4	17.8
It's all the same to him	F	67	15	11	15	8	13	5
	V	8.6	11.1	8.7	13.1	5.6	9.6	3.9
	H		22.4	16.4	22.4	11.9	19.4	7.5
He does not play	F	10	0	7	1	1	1	0
	V	1.3	0	5.5	0.9	0.7	0.7	0
	H		0	70,0	10.0	10.0	10.0	0
No reply	F	104	15	15	14	7	34	19
	V	13.3	11.1	11.8	12.3	4.9	25.2	15.0
	H		14.4	14.4	13.5	6.7	32.7	18.3
Total	F	780*	135	127	114	142	135	127
	H		17.3	16.3	14.6	18.2	17.3	16.3

*/ Only parents of children 7-11, and 11-14 were asked (65% of the total sample)

The apartment, table 13

If your child has a favourite placa in the ~~apartment~~, where is it		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šum.	Čengič vila	Koševo	Kurlag. raskr.	Centar
In your room	F	121	22	12	34	16	17	20
	V	10.1	10.9	6.1	17.0	7.8	8.5	10.2
	H		18.2	9.9	28.1	13.2	14.0	16.5
In children's rooms	F	325	76	74	23	68	27	57
	V	27.1	37.8	37.4	11.5	33.2	13.6	28.9
	H		23.4	22.8	7.1	20.9	8.3	17.5
In the kitchen	F	184	20	14	59	25	36	30
	V	15.3	10.0	7.1	29.5	12.2	18.1	15.2
	H		10,9	7.6	32.1	13.6	19.6	16.3
In the entrance hall	F	98	17	8	18	14	21	20
	V	8.2	8.4	4.0	9.0	6.8	10.5	10.1
	H		17.3	8.2	18.4	14.3	21.4	20.4
It is all the same to him	F	215	27	42	14	26	66	40
	V	17.9	13.4	21.2	7.0	12.7	33.1	20.3
	H		12.6	19.5	6.5	12.1	30.7	18.6
Total	F	1200	201	198	200	205	199	197
	H	99.9	16.7	16.5	16.7	17.1	16.6	16.4

The apartment. **Table 13a**

If your child does not have a room, where does he spend his time		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. raskr.	Cent.
In other rooms	F	333	36	39	77	75	55	51
	V	67.9	70.6	69.6	52.7	63.6	48.7	56,0
	H		10.8	11.7	23.1	22.6	16.5	15,3
In the kitchen	F	156	10	4	61	27	32	22
	V	27.1	19.6	7.2	41.8	22.9	28.3	24,2
	H		6.4	2.6	39.1	17.3	20.5	14,1
Somewhere else	F	30	3	6	1	7	7	6
	V	5.2	5.9	10.7	0.7	5.9	6.2	6,6
	H		10.0	20.0	3.4	23.3	23.3	20,0
Outside of the house	F	27	-	-	5	6	15	1
	V	4.7	-	-	3.4	5.1	13.3	1,1
	H		-	-	18.5	22.2	55.6	3,7
In the only room in the apartment	F	29	2	7	2	3	4	11
	V	5.1	3.9	12.5	1.4	2.5	3.5	12,1
	H		6.9	24.1	6.9	10.4	13.8	37,9
Total	F	575*	51	56	146	118	113	91
	H	100.0	8.9	9.7	25.4	20.5	19.7	15,8

575* (47,9% of 1201) - number of dvelling units withought children room

The apartment. **Table 13b**

If your child does not have a room, where does he spend his time		Total	Age od children		
			3-7	7-11	11-14
In other rooms	F	333	154	87	92
	V	57.9	52.7	58.8	68.1
	H		46.3	26.1	27.6
In the kitchen	F	156	83	42	31
	V	27.1	28.4	28.4	23.0
	H		53.2	26.9	19.9
Somewhere else	F	30	20	7	3
	V	5.2	6.9	4.7	2.2
	H		66.7	23.3	10.0
Outside of the house	F	27	18	4	5
	V	4.7	6.2	2.7	3.7
	H		66.7	14.8	18.5
In the only room	F	29	17	8	4
	V	5.1	5.8	5.4	3.0
	H		58.6	27,6	13.8
	F	575*	292	148	135
	V	100.0	50.8	25.7	23.5

575* (47,92 of 1201) number of children withought room

The apartment. Table 13c

If your child does not have a room where does he spend his time		Total	Number of rooms								
			Efficiency	1 room	1,5 room	2 room	2,5 room	3 room	3,5 room	4 + room	No reply
In other rooms	F	333	17	67	11	2o5	20	11	0	1	0
	V	57.9	68.0	37.6	68.75	67.2	66.7	61.1	0.0	100.0	5.0
	H		5.1	20.1	3.3	61.6	6.0	3.3	0.0	0.3	C.3
In the kitchen	F	156	3	87	2	58	5	0	0	0	1
	V	27.1	12.0	48.9	12.5	19.0	16.7	0.0	0.0	0.0	50.0
	H		1.9	55.8	1.3	37.2	3.2	0.0	0.0	0.0	0.6
Somewhere else	F	30	0	6	1	15	3	5	0	0	0
	V	5.2	0.0	3.4	6.25	4.9	10.0	27.8	0.0	0.0	0.0
	H		0.0	20.0	3.3	50.0	10.0	16.7	0.0	0.0	0.0
Outside of the house	F	27	2	8	-	16	1	0	0	0	0
	V	4.7	8.0	4.5	-	5.3	3.3	0.0	0.0	0.0	0.0
	H		7.4	29.6	-	59.3	3.7	0.0	0.0	0.0	0.0
In the only room	F	29	3	10	2	11	1	2	0	0	0
	V	5.1	12.0	5.6	12.5	3.6	3.3	11.1	0.0	0.0	0.0
	H		10.3	34.5	6.9	37.9	3.5	6.9			
Total	F	575	25	178	16	305	30	18	0	1	2
	H	100.0	4.3	31.0	2.8	53.0	5.2	3.1	0.0	0.2	0.4

The apartment. Table 14

Has the child chosen the favourite place himself		Total	Number of rooms								
			Efficiency	1 room	1,5 room	2 room	2,5 room	3 room	3,5 room	4+ room	No reply
He himself	F	847	14	122	33	502	96	64	4	7	0
	V	76.1	58.3	71.3	84.6	78.8	73.3	70.3	80.0	87.5	71.4
	H		1.7	14.4	3.9	59.3	11.3	7.6	0.5	0.8	0.6
We chose it	F	182	6	30	4	94	27	17	1	1	2
	V	16.4	25.0	17.5	10.3	14.8	20.6	18.7	20.0	12.5	28.6
	H		3.3	16.5	2.2	51.6	14.8	9.3	0.5	0.5	1.1
I do not remember	F	13	0	4	0	7	1	1	0	0	0
	V	1.2	0.0	2.3	0.0	1.1	0.8	1.1	0.0	0.0	0.0
	H		0.0	30.8	0.0	53.8	7.7	7.7	0.0	0.0	0.0
It is all the same to him	F	71	4	15	2	34	7	9	0	0	0
	V	6.4	16.7	8.8	5.1	5.3	5.3	9.9	0.0	0.0	0.0
	H		5.6	21.1	2.8	47.9	9.9	12.7	0.0	0.0	0.0
Total	F	1113	24	171	39	637	131	91	5	8	7
	H	92.7	2.2	15.4	3.5	57.2	11.8	8.2	0.4	0.7	0.6

The apartment. Table 15

Does your child have a working space in the apar~~tment~~		Total	Number of rooms								
			efficiency	1 room	1,5 room	2 room	2,5 room	3 room	3,5 room	4+ room	No reply
In his room	F	253	2	7	5	141	55	37	2	0	4
	V	32.4	15.4	7.2	27.8	30.3	55.0	53.7	40.0	0	66.6
	H		0.8	2.8	2.0	55.7	21.7	14.6	0.8	0	1.6
In parent's room	F	82	4	24	0	34	13	7	0	0	0
	V	10.5	30.8	24.7	0	7.3	13.0	10.1			
	H		4.9	29.3	0	41.5	15.8	8.5			
In the living room	F	141	4	9	5	95	16	11	0	0	1
	V	18.1	30.8	9.3	27.8	20.4	16.0	15.9			16.7
	H		2.8	6.4	3.5	67.4	11.3	7.8			0.7
In the kitchen	F	76	0	19	2	50	2	2	0	0	1
	V	9.8	0	19.6	11.1	10.7	2.0	2.9			16.7
	H			25.0	2.6	65.9	2.6	2.6			1.3
He does not have it	F	228	3	38	6	146	14	12	3	6	0
	V	29.2	23.0	39.2	33.3	31.3	14.0	17.4	60.0	100	
	H		1.3	16.7	2.6	64.0	6.1	5.4	1.3	2.6	
Total	F	780*	13	97	18	466	100	69	5	6	6
	H		1.7	12.5	2.3	59.7	12.8	8.8	0.6	0.8	0.8

*/780 is the total of children going to school

The apartment. Table 15a

Does your child have a working space in the apt.		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. raskr.	Centar
In your room	F	82	7	6	13	33	11	12
	V	10.5	5.1	4.6	11.4	23.2	8.5	9.4
	H		8.5	7.3	15.9	40.2	13.5	14.6
In the living room	F	141	15	13	32	37	27	17
	V	18.2	10.9	10.1	28.1	26.1	20.8	13.3
	H		10.6	9.2	22.7	26.2	19.1	12.1
In his own room	F	253	19	71	21	45	38	59
	V	23.4	13.9	55.1	18.4	31.7	29.2	46.1
	H		7.5	28.1	8.3	17.8	15.0	23.3
In the kitchen	F	76	8	11	18	11	20	8
	V	9.7	5.8	8.5	15.8	7.7	15.4	6.2
	H		10.5	14.5	23.7	14.5	26.3	10.5
He does not have a place	F	228	88	28	30	16	34	32
	V	29.2	64.3	21.7	26.3	11.3	26.1	25.0
	H		38.6	12.3	13.2	7.0	14.9	14.0
	F	780*	137	129	114	142	130	128
	H	100.0	17.6	16.5	14.6	18.2	16.7	16.4

*/780 is the total of children going to school

The apartment. Table 1

If your child does not have a fixed working space, where does he study		Total	Beograd		Sarajevo		Titovo Uži	
			Banovo brdo	Šum.	Čeng. vila	Koš.	Kurl. raskr.	Centa
In the living room	F	41	2	9	9	6	5	10
	V	18.0	10.0	27.3	25.7	8.2	14.7	30.3
	H		4.9	22.0	22.0	14.6	12.2	24.4
In your room	F	23	2	4	8	0	4	5
	V	10.1	10.0	12.1	22.9	0.0	11.8	15.2
	H		8.7	17.4	34.8	0.0	17.4	21.7
In his own room	F	10	2	2	2	3	1	0
	V	4.4	10.0	6.1	5.7	4.1	2.0	0.0
	H		20.0	20.0	20.0	30.0	10.0	0.0
In the kitchen	F	73	11	14	14	8	20	6
	V	32.0	55.0	42.4	40.0	10.9	58.8	18.2
	H		15.1	19.2	19.2	10.9	27.4	8.2
Outside of the apartment	F	81	3	4	2	56	4	12
	V	35.5	15.0	12.1	5.7	76.8	11.8	36.4
	H	228*	3.7	4.9	2.5	69.1	4.9	14.9
Total	F		20	33	35	73	34	33
	H		8.8	14.5	15.3	32.0	14.9	14.5

*/228 - number of school age children who do not have a fixed working space (29,2% of the total sample)

The apartment. Table 15c

If your child does not have a fixed working space, where does he study		Total	Number of rooms								
			efficiency	1 room	1,5 room	2 room	2,5 room	3 room	3,5 room	4+ room	No reply
In the living room	F	63	3	19	0	30	5	5	0	0	1
	V	27.6	50.0	35.1	0.0	26.0	16.6	25.0	0.0	0.0	100.0
	H		4.7	30.1	0.0	47.6	7.9	7.9	0.0	0.0	1.5
In your room	F	2	0	0	0	0	2	0	0	0	0
	V	0.8	0.0	0.0	0.0	0.0	6.6	0.0	0.0	0.0	0.0
	H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In his room	F	9	0	0	0	8	1	0	0	0	0
	V	3.9	0.0	0.0	0.0	7.0	3.3	0.0	0.0	0.0	0.0
	H		0.0	0.0	0.0	88.8	11.2	0.0	0.0	0.0	0.0
In the kitchen	F	73	1	26	1	40	4	1	0	0	0
	V	32.0	16.6	48.1	100.0	34.7	13.3	5.0	0.0	0.0	0.0
	H		1.3	35.6	1.3	54.7	5.4	1.3	0.0	0.0	0.0
Outside of the apartment	F	81	2	9	0	37	18	14	0	1	0
	V	64.2	33.3	16.6	0.0	32.1	60.0	70.0	0.0	100.0	0.0
	H		2.4	11.1	0.0	45.6	22.2	17.2	0.0	1.2	0.0
Total	F	228*	6	54	1	115	30	20	0	1	1
	H		2.5	23.6	0.4	50.9	13.1	8.7	0.0	0.4	0.4

+228* - number of schoolage children who do not have a fixed working space

The apartment. Table 17

Does your child have a child table		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengič vila	Koševo	Kurl. raskr.	Centar
Yes	F	379	76	69	67	95	38	34
	V	31.6	37.6	34.8	33.5	46.3	19.1	17.3
	H		20.1	18.2	17.7	25.1	10.0	9.0
No	F	795	126	121	121	103	161	163
	V	66.2	62.4	61.1	60.5	50.2	80.9	82.7
	H		15.8	15.2	15.2	13.0	20.3	20.5
No reply	F	27	0	8	12	7	0	0
	V	2.2	0.0	4.0	6.0	3.4	0.0	0.0
	H		0.0	29.6	44.4	25.9	0.0	0.0
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

The apartment. Table 17a

Does your child have a child-chair		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
Yes	F	427	84	75	72	98	51	47
	V	35.6	41.6	37.9	36.0	47.8	25.6	23.9
	H		19.7	17.6	16.9	23.0	11.9	11.0
No	F	748	118	116	115	101	148	150
	V	62.3	58.4	58.6	57.5	49.3	74.4	76.1
	H		15.8	15.5	15.4	13.5	19.8	20.1
No reply	F	26	0	7	13	6	0	0
	V	2.2	0.0	3.5	6.5	2.9	0.0	0.0
	H		0.0	26.9	50.0	23.1	0.0	0.0
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

The apartment. Table 19a

Is there enough space for toys in the apt.		Total	Number of rooms								
			effic.	1 room	1,5 room	2 room	2,5 room	3 room	3,5 room	4+ room	No reply
Yes	F	451	14	93	26	249	38	25	1	2	3
	V	37.6	56.0	49.7	61.9	35.7	27.7	27.5	16:7	25.0	42.9
	H		3.1	20.6	5.8	55.2	8.4	5.5	0.2	0.4	0.7
No	F	722	11	90	15	428	99	64	5	6	4
	V	60.2	44.0	48.1	35.7	61.4	72.3	70.3	83.3	75.0	57.1
	H		1.5	12.5	2.1	59.3	13.7	8.9	0.7	0.8	0.6
No reply	F	27	0	4	1	2-	0	2	0	0	0
	V	2.2	0.0	2.1	2.4	2.9	0.0	2.2	0.0	0.0	0.0
	H		0.0	14.8	3.7	74.1	0.0	7.4	0.0	0.0	0.0
Total	F	1200	25	187	42	697	137	91	6	8	7
	H	99.9	2.1	15.6	3.5	58.1	11.4	7.6	0.5	0.7	0.6

The apartment. Table 19b

Is there enough space for toys in the apt.		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koš.	Kurl. raskr.	Centar
Yes	F	451	66	67	76	77	72	93
	V	37.6	32.7	33.8	38.0	37.6	36.2	47.4
	H		14.6	14.9	16.9	17.1	16.0	20.6
No	F	722	135	125	120	127	118	97
	V	60.2	66.8	63.1	60.0	62.0	59.3	49.5
	H		18.7	17.3	16.6	17.6	16.3	13.4
No reply	F	27	1	6	4	1	9	6
	V	2.2	0.5	3.0	2.0	0.5	4.5	3.1
	H		3.7	22.2	14.8	3.7	33.3	22.2
Total	F	1200	202	198	200	205	199	196
	H	99.9	16.8	16.5	16.7	17.1	16.6	16.3

The apartment. Table 22

Who is in whose way in the apt.		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. rask.	Centar
Parents in your way	F	50	4	8	16	10	6	6
	V	13.1	5.8	12.1	23.9	15.2	9.7	11.[illegible]
	H		8.0	16.0	32.0	20.0	12.0	12.0
You in parents' way	F	33	9	2	6	6	6	4
	V	8.7	13.0	3.0	9.0	9.1	9.7	7.8
	H		27.3	6.1	18.2	18.2	18.2	12.1
Both	F	15	2	1	2	3	3	4
	V	3.9	2.9	1.5	3.0	4.5	4.8	7.8
	H		13.3	6.7	13.3	20.0	20.0	26.7
Noone	F	280	54	54	43	46	47	36
	V	73.5	78.3	81.8	64.2	69.7	75.8	70.6
	H		19.3	19.3	15.4	16.4	16.8	12.9
No reply	F	3	0	1	0	1	0	1
	V	0.8	0.0	1.5	0.0	1.5	0.0	2.0
	H		0.0	33.3	0.0	33.3	0.0	33.3
Total	F	381+/	69	66	67	66	62	51
	V	99.0	18.1	17.3	17.6	17.3	16.3	13.4

+/ Interviewed are the children 12-14

The apartment. Table 23

Number of rooms		Total	Who is in whose way				
			parents in your way	you in parents' way	Both	Noone	No reply
Effi-ciency	F	4	1	1	0	2	0
	V	1.0	2.0	3.0	0.0	0.7	0.0
	H		25.0	25.0	0.0	50.0	0.0
1 room	F	40	14	2	2	22	0
	V	10.5	28.0	6.1	13.3	7.9	0.0
	H		35.0	5.0	5.0	55.0	0.0
1,5 room	F	6	0	2	0	4	0
	V	1.6	0.0	6.1	0.0	1.4	0.0
	H		0.0	33.3	0.0	66.7	0.0
2 room	F	239	27	20	8	182	2
	V	62.7	54.0	60.6	53.3	65.0	66.7
	H		11.3	8.4	3.3	76.2	0.8
2,5 room	F	51	5	5	4	37	0
	V	13.4	10.0	15.2	26.7	13.2	0.0
	H		9.8	9.8	7.8	72.5	0.0
3 room	F	36	3	2	1	29	1
	V	9.4	6.0	6.1	6.7	10.4	33.3
	H		8.3	5.6	2.8	80.6	2.8
3,5 room	F	1	0	0	0	1	0
	V	0.3	0.0	0.0	0.0	0.4	0.0
	H		0.0	0.0	0.0	100.0	0.0
4 + room	F	2	0	1	0	1	0
	V	0.5	0.0	3.0	0.0	0.4	0.0
	H		0.0	50.0	0.0	50.0	0.0
No reply	F	2	0	0	0	2	0
	V	0.5	0.0	0.0	0.0	0.7	0.0
	H		0.0	0.0	0.0	100.0	0.0
Total	F	381+/	50	33	15	280	3
	H	99.0	13.1	8.7	3.9	73.5	0.8

+/ Interviewed children 11-14.

The apartment. Table 24

Who is in who~~o~~se way		Total	Where do you prefere to play In the house	Infront of the house	In the park	On the playground	In the school yard	every-where	No reply
1		2	3	4	5	6	7	8	9
Parents in your way	F	50	10	33	1	0	2	4	0
	V	13.1	9.8	14.7	100.0	0.0	18.2	11.4	0.0
	H		20.0	66.0	2.0	0.0	4.0	8.0	0.0
You in parents' way	F	33	9	19	0	0	3	2	0
	V	8.7	8.8	8.4	0.0	0.0	27.3	5.7	0.0
	H		27.3	57.6	0.0	0.0	9.1	6.1	0.0
Both	F	15	5	8	0	0	0	2	0
	V	3.9	4.9	3.6	0.0	0.0	0.0	5.7	0.0
	H		33.3	33.3	0.0	0.0	0.0	13.3	0.0
Noone	F	280	78	162	0	6	6	27	1
	V	73.5	76.5	72.0	0.0	100.0	54.5	77.1	100.0
	H		27.9	57.9	0.0	2.1	2.1	9.6	0.4
No reply	F	3	0	3	0	0	0	0	0
	V	0.8	0.0	1.3	0.0	0.0	0.0	0.0	0.0
	H		0.0	100.0	0.0	0.0	0.0	0.0	0.0
Total	F	381+/	102	225	1	6	11	35	1
	H	99.0	26.8	59.1	0.3	1.6	2.9	9.2	0.3

+/ Interviewed children 11-14

The apartment. Table 25

Who is in the way of who~~o~~m		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. raskr.	Centar
Others in my way	F	67	12	11	8	11	14	11
	V	17.0	18.2	18.0	15.4	15.1	20.9	14.5
	H		17.9	16.4	11.9	16.4	20.9	16.4
In the way of others	F	181	33	23	17	40	31	37
	V	45.8	50.0	37.7	32.7	54.8	46.3	48.7
	H		18.2	12.7	9.4	32.1	17.1	20.4
Everyone on everyone way	F	46	5	5	15	7	7	7
	V	11.6	7.6	8.2	28.8	9.6	10.4	9.2
	H		10.9	10.9	32.6	15.2	15.2	15.2
Noone in noone's way	F	88	15	18	10	12	14	19
	V	22.3	22.7	29.5	19.2	16.4	20.9	25.0
	H		17.0	20.5	11.4	13.6	15.9	21.6
No reply	F	13	1	4	2	3	1	2
	V	3.3	1.5	6.6	3.8	4.1	1.5	2.6
	H		7.7	30.8	15.4	23.1	7.7	15.4
Total	F	395+/	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

+/ Interviewed children 7-11

The apartment. Table 26

Who is in the way of whoom		Total	Where does your child prefere to play		
			In the apt.	Outside	No reply
Others in your way	F	67	17	48	2
	V	17.0	20.2	15.6	50.0
	H		25.4	71.6	3.0
You in the way of others	F	181	32	149	0
	V	45.8	38.1	48.5	0.0
	H		17.7	82.3	0.0
Everyone in everyone's way	F	46	8	37	1
	V	11.6	8.5	12.1	25.0
	H		17.4	80.4	2.2
Noone in noone's way	F	88	22	65	1
	V	22.3	26.2	21.2	25.0
	H		25.0	73.9	1.1
No reply	F	13	5	8	0
	V	3.3	6.0	2.6	0.0
	H		38.5	61.5	0.0
Total	F	395+/	84	307	4
	H	100.0	21.3	77.7	1.0

+/ Interviewed children 7-11

The apartment. Table 27

Do your children get into conflict because of the limited space in the apt.		Total	Beograd		Sarajevo		T. Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurlag. raskr.	Cent
Yes	F	373	40	50	106	45	71	61
	V	44.7	30.3	41.0	69.8	30.2	51.1	43.3
	H		10.7	13.4	28.4	12.1	19.0	16.3
No	F	457	92	72	46	104	67	76
	V	54.7	69.7	59.0	30.2	69.8	48.2	53.9
	H		20.3	15.7	10.1	22.6	14.7	16.6
Apt. is not small	F	5	0	0	0	0	1	4
	V	0.6	0.0	0.0	0.0	0.0	0.72	2.8
	H	0.0	0.0	0.0	0.0	0.0	20.0	80.0
Total	F	835+/	132	122	152	149	139	141
	H		15.8	14.6	18.2	17.8	16.6	16.9

+835 - number of families with more then one child

The apartment. Table 28

Do your children get into conflict because of the limited space in the apt.		Total	Number of rooms							
			effic.	1 room	1,5	2	2,5	3	3,5	4+
Yes	F	373	10	65	18	229	34	17	0	0
	V	44.7	90.9	62.5	56.2	46.2	32.7	23.0	0	0
	H		2.8	17.5	4.9	61.4	9.1	4.6	0	0
No	F	457	1	39	14	264	69	56	6	8
	V	54.7	9.1	37.5	43.8	53.2	66.3	75.7	100.0	100
	H		0.2	8.5	3.1	57.8	15.1	12.2	1.3	1.7
Apartment is not small	F	5	0	0	0	3	1	1	0	0
	V	0.6	0.0	0.0	0.0	0.6	1.0			
	H		0.0	0.0	0.0	60.0	20.0	20.0	0	0
Total	F	835	11	104	32	496	104	74	6	8
	H	100.0	1.3	12.5	3.8	59.4	12.5	8.9	0.7	0.9

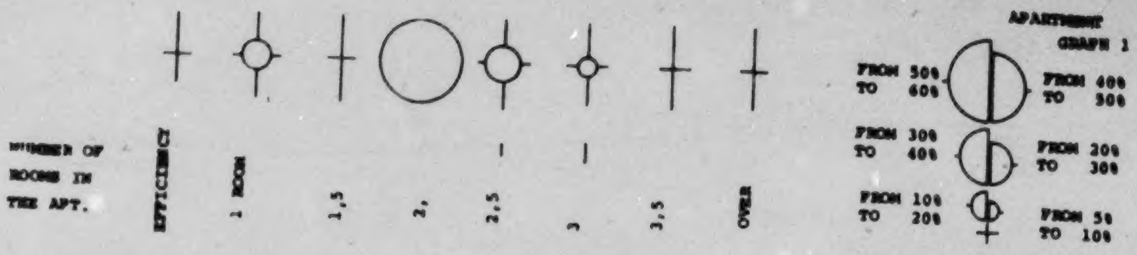
The apartment. Table 30

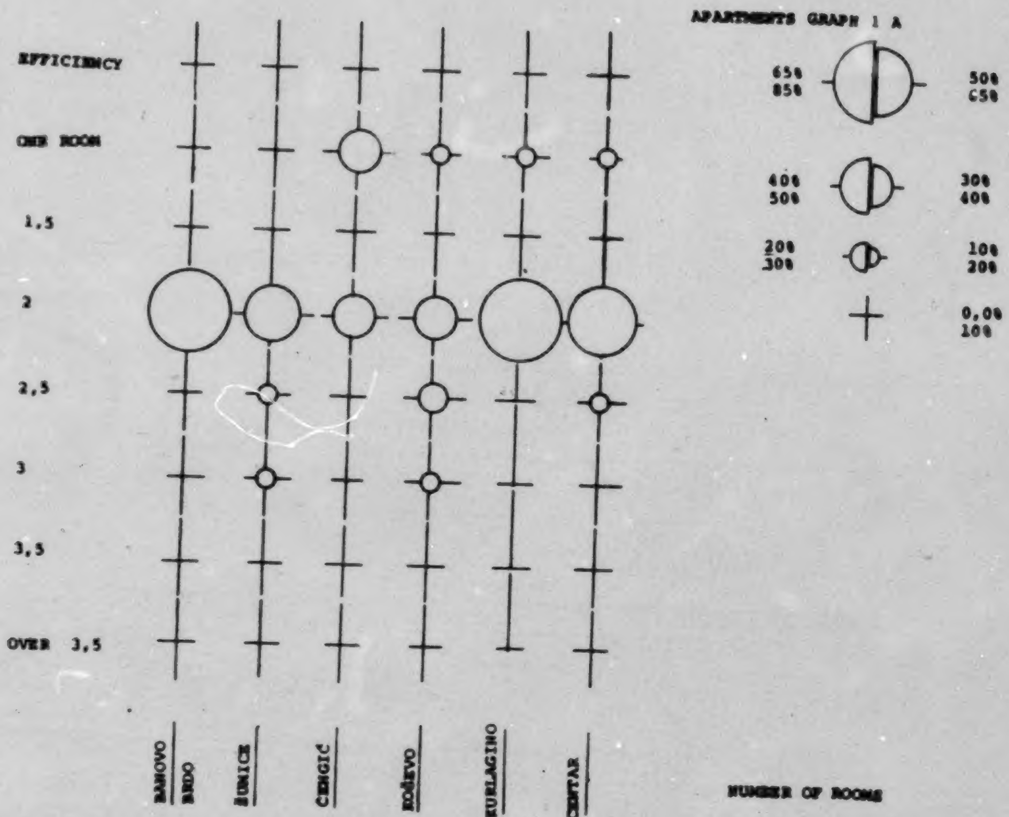
		Total	Where do you spend your time					
			in the house	infront of the house	in the park	on the playground	on the school yard	Every where
Effici-ency	F	4	1	3	0	0	0	0
	V	1.0	0.9	1.3	0.0	0.0	0.0	0.0
	H		25.0	75.0	0.0	0.0	0.0	0.0
1 room	F	41	14	20	0	0	2	5
	V	10.6	13.2	8.9	0.0	0.0	18.2	14.3
	H		34.1	48.8	0.0	0.0	4.9	12.2
1,5 room	F	6	1	4	0	0	0	1
	V	1.6	0.9	1.8	0.0	0.0	0.0	2.9
	H		16.7	66.7	0.0	0.0	0.0	16.7
2 room	F	240	61	146	1	4	6	22
	V	62.3	57.5	64.9	100.0	66.7	54.5	62.9
	H		25.4	60.8	0.4	1.7	2.5	9.2
2,5 room	F	52	17	27	0	1	0	6
	V	13.5	16.0	12.0	0.0	16.7	0.0	17.1
	H		32.7	51.9	0.0	1.9	0.0	11.5
3 room	F	37	12	21	0	1	2	1
	V	9.6	11.3	9.3	0.0	16.7	18.2	2.9
	H		32.4	56.8	0.0	2.7	5.4	2.7
3,5 room	F	1	0	1	0	0	0	0
	V	0.3	0.0	0 0	0.0	0.0	0.0	0.0
	H		0.0	100.0	0.0	0.0	0.0	0.0
4 + room	F	2	0	1	0	0	1	0
	V	0.5	0.0	0.4	0.0	0.0	0.0	9.1
	H		0.0	50.0	0.0	0.0	50.0	0.0
No reply	F	2	0	2	0	0	0	0
	V	0.5	0.0	0.9	0.0	0.0	0.0	0.0
	H		0.0	100.0	0.0	0.0	0.0	0.0
Total	F	385	106	225	1	6	11	35
	H	100.0	27.5	58.4	0.3	1.6	2.9	9.1

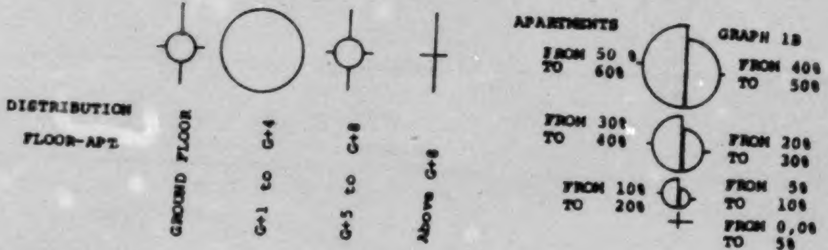
The apartment. Table 31

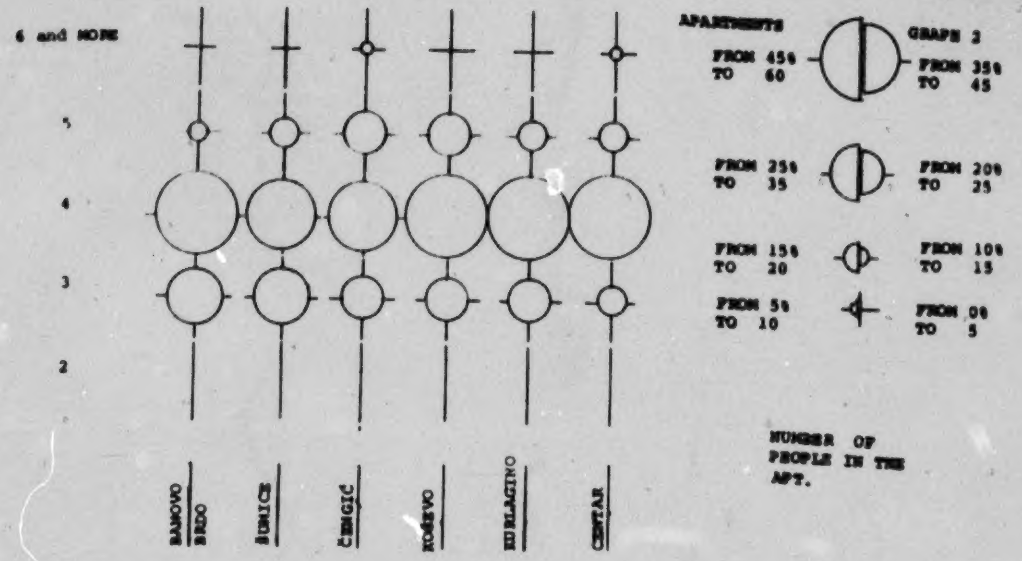
Where do you prefere to play		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Cent.
In the apartment	F	84	11	12	19	18	9	15
	V	21.3	16.7	19.7	36.5	24.7	13.4	19.7
	H		13.1	14.3	22.6	21.4	10.7	17.9
Around the house	F	307	54	49	33	54	58	59
	V	77.7	81.8	80.3	63.5	74.0	86.6	77.0
	H		17.6	16.0	10.7	17.6	18.9	19.2
No reply	F	4	1	0	0	1	0	2
	V	1.0	1.5	0.0	0.0	1.4	0.0	2.6
	H		25.0	0.0	0.0	25.0	0.0	50.0
Total	F	395	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

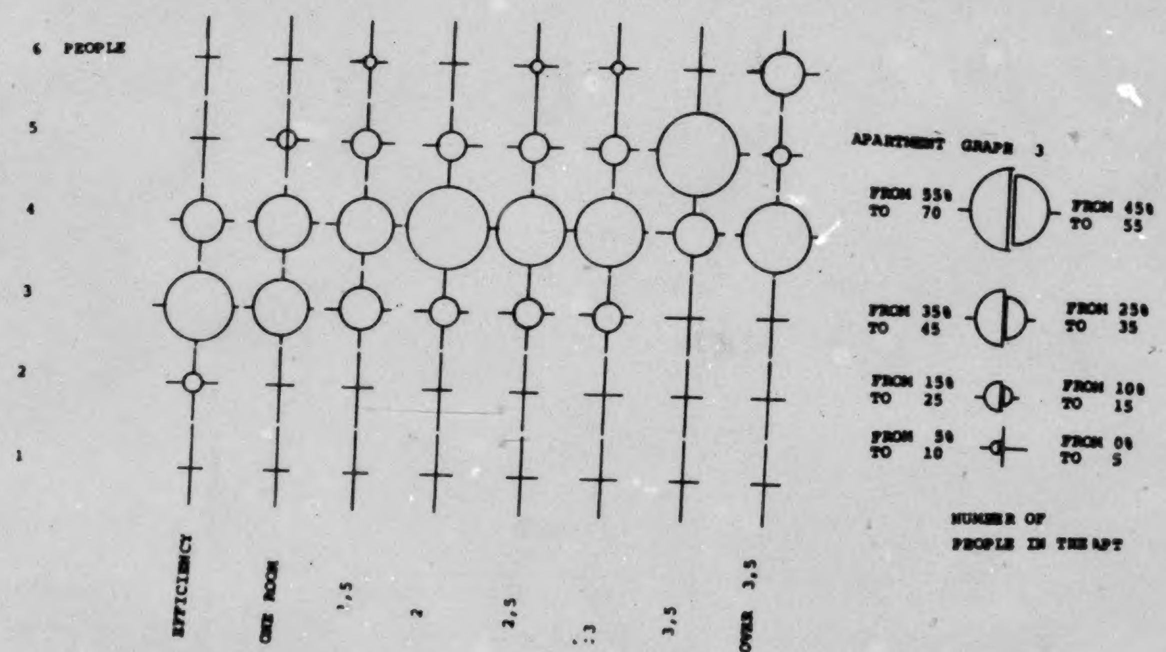
PART THREE: GRAPHS


APARTMENT
GRAPH 1
NUMBER OF
ROOMS IN
THE APT.
EFFICIENCY
1 ROOM
1,5
2,
2,5
3
3,5
OVER
FROM 50%
TO 60%
FROM 40%
TO 50%
FROM 30%
TO 40%
FROM 20%
TO 30%
FROM 10%
TO 20%
FROM 5%
TO 10%

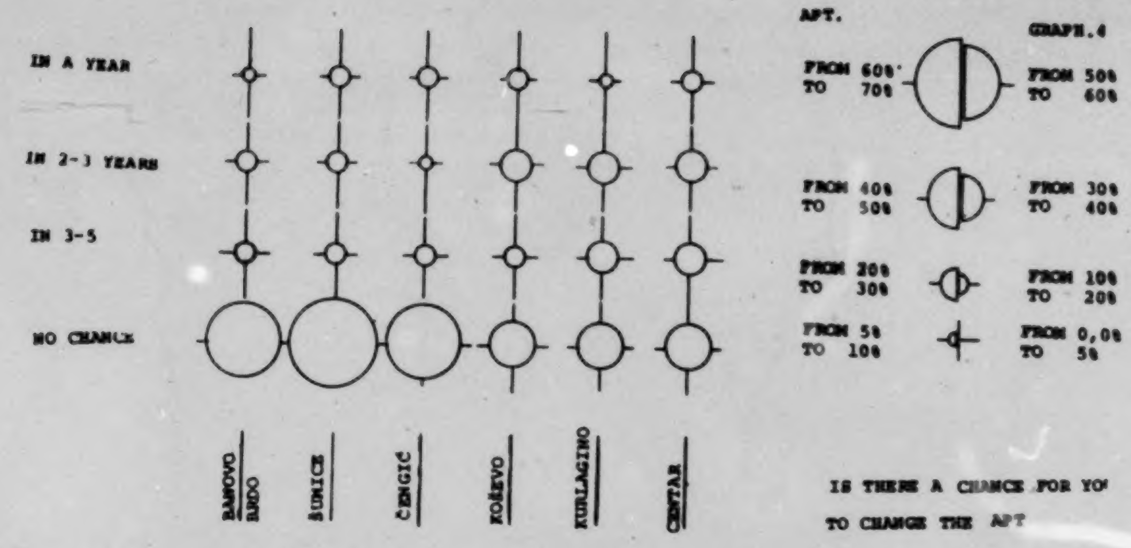

APARTMENTS GRAPH 1 A
EFFICIENCY
ONE ROOM
1,5
2
2,5
3
3,5
OVER 3,5
BANOVO
BRDO
ŠUNICE
ČENGIĆ
KOŠEVO
KURLAGINO
CENTAR
NUMBER OF ROOMS
65%
85%
50%
65%
40%
50%
30%
40%
20%
30%
10%
20%
0,0%
10%


APARTMENTS
GRAPH 1B
DISTRIBUTION
FLOOR-APT.
GROUND FLOOR
G+1 to G+4
G+5 to G+8
Above G+8
FROM 50 %
TO 60%
FROM 40%
TO 50%
FROM 30%
TO 40%
FROM 20%
TO 30%
FROM 10%
TO 20%
FROM 5%
TO 10%
FROM 0,0%
TO 5%

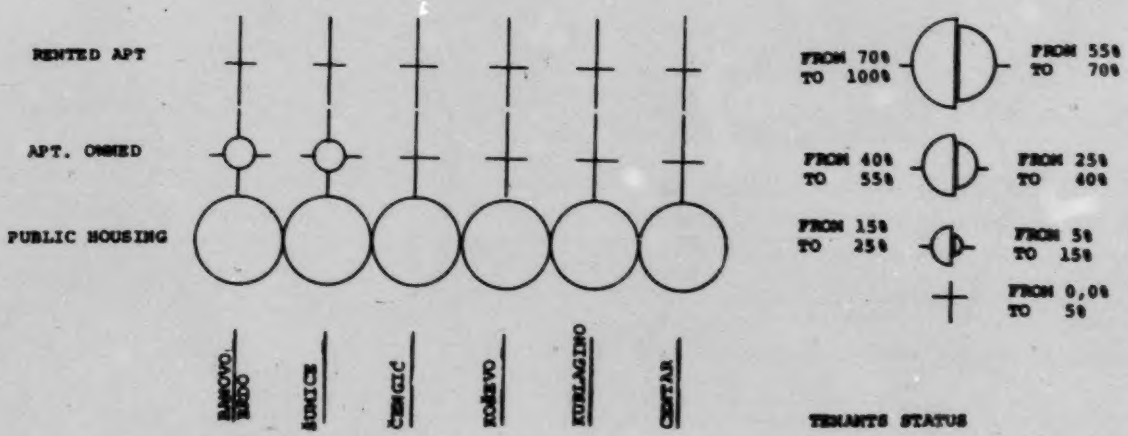

6 and MORE
5
4
3
2
APARTMENTS
GRAPH 2
FROM 45% TO 60
FROM 35% TO 45
FROM 25% TO 35
FROM 20% TO 25
FROM 15% TO 20
FROM 10% TO 15
FROM 5% TO 10
FROM 0% TO 5
NUMBER OF PEOPLE IN THE APT.
BANOVO BRDO
ŠUNICE
ČENGIĆ
KOŠEVO
KURLAGINO
CENTAR


6 PEOPLE
5
4
3
2
1
APARTMENT GRAPH 3
FROM 55% TO 70
FROM 45% TO 55
FROM 35% TO 45
FROM 25% TO 35
FROM 15% TO 25
FROM 10% TO 15
FROM 5% TO 10
FROM 0% TO 5
NUMBER OF PEOPLE IN THE APT
EFFICIENCY
ONE ROOM
1,5
2
2,5
3
3,5
OVER 3,5

GRAPH.4

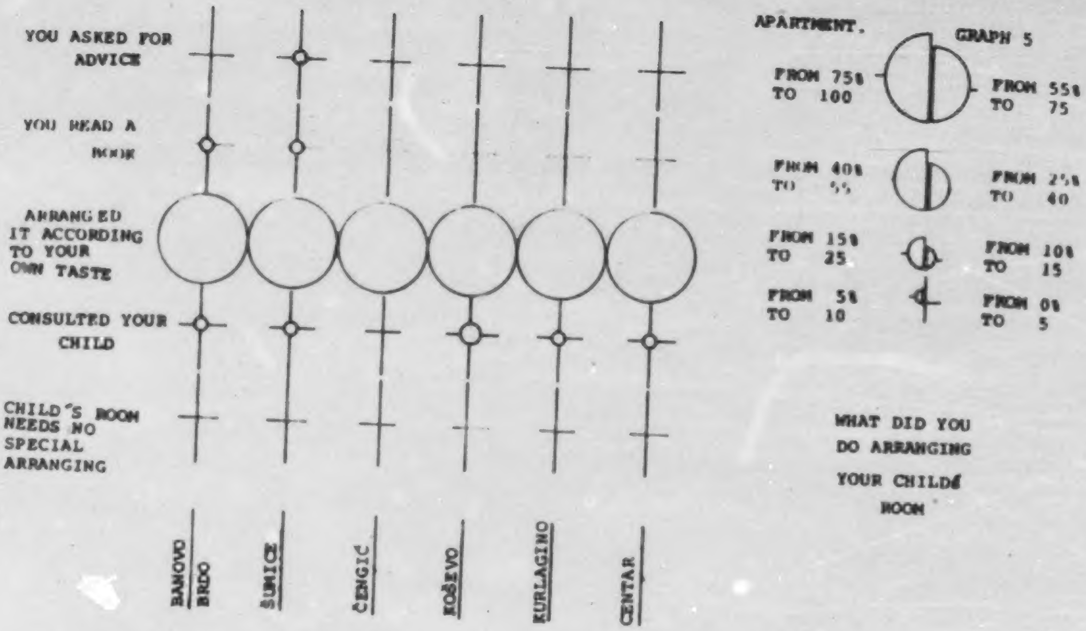


IS THERE A CHANCE FOR YO
TO CHANGE THE APT



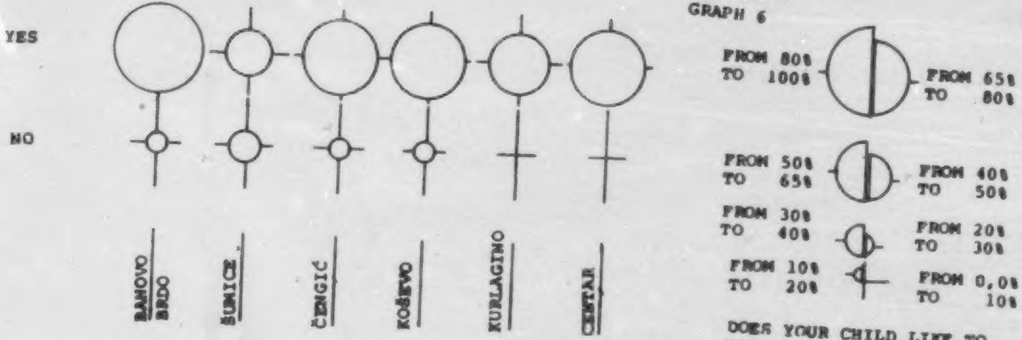
TENANTS STATUS

APARTMENT. GRAPH 5



WHAT DID YOU DO ARRANGING YOUR CHILDŚ ROOM

APARTMENT
GRAPH 6



DOES YOUR CHILD LIKE TO HIDE IN THE FURNITURE

PART FOUR: IMMEDIATE SURROUNDINGS OF THE BUILDING

1. Parents on Child´s Favorite Play Place Outside the Home

In response to the question of where their child most readily plays, parents most often cite open spaces (Table 1), and then the building entrance and the area around it. This completely agrees with the notes of the observers and with the impressions of the central research team members: we most frequently found children around the building entrance, on the boundary between open and enclosed space. In our opinion this is completely normal: open spaces are attractive and full of change andnovelty, but the child still does not have enough courage to cut away from the threshold and set out on the adventure of wandering about. Spaces are either private or public -- there are no easy gradations between the two. If the spatial composition of the building permitted, children would probably spend most time in front of the apartment entrance. Given the situation demonstrated in the analysis of the public spaces of the building,children are forced to forgo a gradual independence and spend their time at the building entrance. In the case of a high-rise, from the standpoint of a child, this may be a long distance from the family. The few responses in the column ´in the yard, in the entrance of the neighboring building´ (also Table 1) serve to confirm the fact that the child does not go far from the building.

The same table displays other expected patterns.

(1) The largest group of children who like to spend time in the stairwell and in building entrances was found in the lower-standard Sarajevo complex (Čengić Vila II). The open spaces of this complex are too large, spatially unstructured and undifferentiated, poorly equipped, and lacking attractive facilities for children´s play and games (see Part Five on playgrounds, which follows). At the same time (according to Buildings ~~Table 5~~ GRAPH 2;3, which has been discussed previously), all building entrances in the complex without exception are passageways, which means that they are cramped even for their basic purpose of movement and passage.

(2) In Kurlagino Raskršće in Titovo Užice most parents stated that their children willingly play in the yard. (Due to the type and disposition of the buildings, the degree of spatial enclosur in this complex permits us to consider these open spaces as ´yards.´ These spaces - yards - form a clearly defined children´s ´kingdom.´

(3) The highest incidence of children playing in the open spaces around the building was in the higher-standard complex in Sarajevo. There the spaces are full of greenery, well maintained, and located on terraced terrain so that each level has a well-defined area. The spaces are not too large, and additionally are easily accessible to most of the children, as most of the buildings in this complex represent a transitional type between individual and multifamily dwellings.

(4) The number of children playing in the playground in the vicinity of the building is highest in the upper-standard Belgrade complex, as this complex has clearly defined, specially equipped playgrounds that are age-graded and close to the buildings. In our opinion, the low height of these buildings contributes to the child´s feeling of security, and to the parent´s as well. It is of interest that in the upper-standard Titovo Užice complex many more children play in the open spaces around the building than in the specially designed play area, although the playground is situated in a favorable spot (set back from the major square, beside a pedestrian passage leading onto the square).

(5) In both Titovo Užice complexes more parents report that their children play on the street corner than in the other cities. The Titovo Užice complexes are part of redeveloped areas with combined free disposition of buildings and parallel orientation to the street, while the other complexes are the result of urban expansion in relatively large-scale developments where the street has been spatially deemphasized.

(6) Nearby parking lots proved less attractive to children (according to parents) than the investigators expected.

(7) Banovo Brdo had the largest number of parents who had not noticed that their child had a marked preference for any of the places suggested. It is of interest that the other Belgrade complex was also outstanding in this respect.

When broken down by age groups, the preferences of children (according to parents, and thus to be taken with reservations) for definite places in the building and the vicinity presents the following picture.

(1) Within each age group most of the children spend their time in the open spaces in the vicinity of the building.

(2) When answers are broken down by locations, the children who prefer the stairwell and building entrance belong to the most dependent category (age 2 to 7).

(3) It is the older children who play in the open spaces surrounding the building, with the intermediate age group (from 7 to 11) dominating.

(4) The streetcorner also attracts the intermediate group more than the older children.

(5) Nearby parking spaces attract very few of the youngest children, which is quite understandable, but approximately the same number of intermediate and older children are represented.

(6) Most of the parents who report that their child displays no preference for any particular place are parents of the youngest age group.

2. Parents´ Willingness to Let Children Leave the Building

Given the fact that apartments are cramped, that stairwells are unsuited to any activity, and that the children´s favorite space is the building entrance (children being attracted by the many comings and goings), and given the fact that two thirds of the sample is comprised of schoolchildren with a daily obligation outside the building, the data in Table 2 may come as no surprise. More than four fifths of the parents permit their children to go outside on their own. The largest number of those forbidding their children to do so was found in Titovo Užice´s Centar and Belgrade´s Banovo Brdo. Such prohibitions are related to the extremely heavy traffic in both districts and a nearly total absence of safety arrangements. (Most parents report that their greatest fear is of accidents: Banovo Brdo´s Požega Street is one of the most dangerous traffic arteries in Belgrade).

Most parents permit their children to go outside alone, but -- it should be remembered -- do not let them go to friends´ homes.

Broken down by age groups, the same data demonstrated a completely expected pattern. It is the youngest age group which is to the greatest extent forbidden to go out alone and the youngest age group is the one calling for the closest supervision (Table 3). Nevertheless it seems to us that the number of children of the youngest age level going outside the building alone is relatively large (two thirds of the total number of preschoolers). This means that there are twice as many parents who consider the neighborhood open spaces safe as parents who consider them unsafe for small children. (Most likely the parents who consider these spaces safe are generally parents of the older pre-schoolers).

The replies of the children of the older school-age category confirm this pattern (Table 4).

Only thirteen children of the older school-age category speak of parental strictness (eight of them are from Banovo Brdo where there are frequent traffic accidents). In all of Titovo Užice and in the upper-standard Sarajevo complex there are no children who are forbidden by their parents to go outside alone. The former case may be a consequence of the greater feeling of security in a town the size of Titovo Užice, a town of single family houses, while the latter case may be a consequence of the building type (low-rise buildings, with a small number of apartments in each).

In the control table (Table 5) one notes that there is little divergence between the answers of parents and children, which suggests that both groups were sincere in their answers and tends to confirm the credibility of the replies as a whole.

3. Undesirable Play Places

Children go outside to play, but the number of parents who are indifferent about where they play is relatively small (Table 6). Most parents do not accept the idea of their child playing on the stairway. The second most-cited place where they do not wish their child to play is the streetcorner. Playing on the stairway is thought to be a nuisance to the neighbors. The streetcorner is thought to be a dangerous play place, particularly for small children. Thus parents seem to be justified in forbidding their children to play on stairways and streetcorners.

Koševo leads as the place where parents to the greatest extent forbid children to play on the stairway and in the building entrance. There the buildings are low and offer easy access to interesting and well-landscaped open spaces nearby. The parents of Čengić Vila are to the greatest extent opposed to the streetcorner as a place for their children to play. There are no streets within this residential complex, and we assume that most parents had in mind the busy traffic artery that passes by this complex, representing a heavily-used connector between the two ends of the city of Sarajevo, which has a very elongated configuration.

The largest number of parents who have nothing against their child playing in whatever space he chooses are to be found in Šumica.

(This question had many possible answers which greatly reduced the figures in the table. Thus in tabulating the data we combined the first six categories into one -- "in the building" -- and combined the second six into another overall category -- "outside the building.")

The number of parents who do not want their child to play within the building is slightly higher than those who are opposed to the child playing out-of-doors.

4. Reason for Attraction of Undesirable Play Areas

We wished to measure -- at least in passing -- the children's insistence upon their chosen play area even at the price of conflict with their parents (Table 7).

Slightly more parents acknowledge that their prohibitions are ineffective than state that they are effective. Cross tabulated with residential complex, the highest percentage of 'disobedient' children (according to parents) would seem to be in Kurlagino Raskršće. It is of interest that in all lower-standard complexes there is a higher percentage of children that persist in playing inuunplanned (informal) spots. If we did not know from personal inspection that playgrounds in these complexes are poorly equipped, poorly maintained, or are simply nonexistent, (such as in Kurlagino Raskršće), we would accuse the children of disobedience. The situation being what it is, the above figures merely confirm that the play instinct is stronger than prohibitions. (The same table shows that in Koševo and Sumice children do not play in the places parents consider undesirable as they have their own areas clearly set aside for them.)

At what age -- according to parental statements -- is disobedience the greatest? According to Table 8, the least obedient age is the intermediate age group in our sample (between 7 and 11) an age at which supervision is resisted, and at which self-control has

Surroundings of Building Table 8

Does your child play in forbidden areas furtively?		Total	Does	Does not	No Answer
3-7 years old	F	402	169	139	94
	V	35.4	35.4	30.0	48.5
	H		42.0	34.6	23.4
7-11 years old	F	391	182	167	42
	V	34.5	38.2	36.1	21.6
	H		46.5	42.7	10.7
11-14 years old	F	341	126	157	58
	V	30.1	26.4	33.9	29.9
	H		37.0	46.0	17.0
Total	F	1134	477	463	194
	H	94.4	42.1	40.8	17.1

not yet been developed. A look at each age group separately reveals that more of the youngest children are disobedient as is the case with the intermediate age group. The situation is reversed in the upper age group where more children respect parental prohibitions of certain areas than do not respect the parental view. However, this category of children no longer plays -- in the narrow sense of the word -- so this figure might be interpreted as the child's possession of his own opinion as to which places are suitable. (Concerning the stairway, for instance, it could be argued that this is not only unsuited for play but is unsuited for anyone's activity.)

When the behavior of children regarding prohibitions on informal play places is cross tabulated with sex (Table 9), a reciprocal relationship shows up: the number of disobedient boys corresponds with the number of obedient girls.

It seems that activities in informal places are more dynamic. Children themselves make the arrangements, maintaining an active relationship toward play. Furthermore, these places are more attractive to children, as proved by the fact that children gather there at the price of conflict with parents or with neighbors. Naturally, managing things on one´s own presumes a certain degree of maturity, which means that preschoolers cannot take advantage of this sort of play.

In addition, informal places may be attractive because of their relative protection from prying eyes.

Out of a conviction that parents should attempt to discover the reasons for disobedience rather than concentrate wholly on its elimination, the investigators asked after these reasons (Table 10). About one quarter of the parents believe that their child goes to prohibited places because that is where the child´s friends gather. The responses "there is no other place" and "the place is attractive to children" were selected far less often than the response stressing the presence of friends. It appears to us that this indicates a low degree of readiness on the part of parents to understand the problem.

5. Play Near the Building

As we saw in the section on the apartment, both sets of school-children -- older and younger -- state that they prefer to play outside rather than at home.

Children of 11 to 14 even state that it is the immediate vicinity of the building that they prefer above all as a spot for their activities.

Twice as many of the older children state that they spend their spare time in front of the building as compared to those reporting that they spend their time at home. Our expectation that this age group spends its free time outside the neighborhood, staying in the neighborhood only when it has to, was not borne out: children aged 11 to 14 spend their time in the neighborhood, the majority of them (according to Table 11) not going far from home.

The tendency for children to spend their time in the building is particularly marked in Belgrade, somewhat less marked in Sarajevo, and least evident in Titovo Užice. The size of the city, the amount of traffic, and finally the relativity of the concepts "near" and "far" for cities of different sizes are all factors that affected the pattern of answers.

6. Safety in the Immediate Vicinity of the Building

As a very rough safety indicator we selected the number of street addresses (entrances) that faced a traffic artery.[1] Most street addresses/entrances -- nearly three quarters of the total -- do not face a traffic artery. Where there is a traffic artery in front of the entrance, the building is usually set back more than three meters[2] (Tables 12 and 13), which leads to the conclusion that concern for traffic safety was a factor in the design of new residential complexes.

7. Conflicts with Neighbors

Children are unquestionably noisy in outdoor play. The liberation of the child's energies is always accompanied by an uproar. The children themselves admit to this in their replies (Table 14) and state that by far the most frequent criticism made of them by neighbors is that they "make a racket."[3]

Broken down by residential complex, the data reveal that the older school-age children (11 to 14) report that the neighbors complain most about the noise of play activities in Čengić Vila (where there is the largest number of children spending time on the staircase and in the building entrance). The lowest incidence of this as a cause of conflict was encountered in the lower-stand
Užice complex.

Surroundings Table 14

What do the neighbors criticize you youngsters for ?

			Belgrade		Sarajevo		Titovo Užice	
		Total	Ban.-Brdo	Šum.	Čengić Vila	Koš.	Kurl. Raskr.	Centar
Kids make noise	F	106	23	20	33	19	7	4
	V	27.5	33.3	30.3	48.5	27.5	11.3	7.8
	H		21.7	18.9	31.1	17.9	6.6	3.8
Kids trample grass	F	12	0	7	1	2	2	0
	V	3.1	0.0	10.6	1.5	2.9	3.2	0.0
	H		0.0	58.3	8.3	16.7	16.7	0.0
other driti-cisms	F	34	11	4	5	7	3	4
	V	8.8	15.9	6.1	7.4	10.1	4.8	7.8
	H		32.4	11.8	14.7	20.6	8.8	11.8
no answer	F	233	35	35	29	41	50	43
	V	60.5	50.7	53.0	42.6	59.4	80.6	64.3
	H		15.0	15.0	12.4	17.6	21.5	18.5
Total	F	385	69	66	68	69	62	51
	H	100.0	17.9	17.1	17.7	17.9	16.1	13.2

The older school-age children (11 to 14) were asked about neighbor´s complaints.

> "We bother them and they us. We do not play before 5 PM. If we try to play before that time they stop us. They pour water on us and puncture our balls. Just a few days ago, when we were playing ball on the roof of the garage, the ball went flying into a neighboring yard. A man picked up the ball and threatened to make a hole in it if we didn´t go away. We had to. We went to the stairway. The President of the Tenants´ Council told us to get away. Then we went over behind my building. A man on the first floor immediately drove us away. When his daughter and her friends come there he just stands and looks, and we don´t have anywhere to play. When we ride our skatemobiles the neighbors often[4] throw water on us and make us go away." (boy, sixth grade, Titovo Užice)

> "Children bother the neighbors when they´re sleeping. And they´re always sleeping." (questionnaire no. 762)
>
> "We dont bother anyone in our building. There´s one lady that bothers me -- she puts holes in our balls. She works in a cafe." (questionnaire no. 129)
>
> "We bother the neighbors since almost every day we yell down around the front door. When we yell at the front door an old woman comes and pours water on us." (questionnaire no. 901)

We expected children of this age to display an uncompromising and rebellious attitude towards any one who for any reason whatever interfered with their play. Children are not inclined to think and accept the reasoning of others if it somehow deprives them of some satisfaction. However, one half of the younger school-goers replied that they bothered the neighbors in their play rather than vice versa (Table 15).

One fifth of the children reply that no one bothers anyone else in their neighborhood, and less than one tenth of the children believe that both children and grown-ups bother one another.

The number of younger school-age children is not equal in all the residential complexes. Thus a percentage breakdown of answers by residential complex is always safer. In terms of percentages, the highest degree of ´self-criticism´was found among the children of the two Titovo Užice complexes. The likeliest explanation of this attitude is that children unconsciously have taken over the attitude of grown-ups. The most rebellious children, rejecting self-criticism and placing the blame on neighbors, are to be found in Banovo Brdo. The highest percentage of children placing blame on themselves and on others is encountered in Koševo, and the highest percentage of children who believe that there is no conflict whatever is to be found in Šumice (nearly a third of the total number of children in this complex).[5]

Surroundings Table 15

Who bothers whom the most		Total	Belgrade		Sarajevo		Titovo Užice	
			Banovo Brdo	Šumice	Čengić Vila	Koševo	Kurlag. Raskr.	Centar
Children bother neighbors	F	197	31	21	22	39	42	42
	V	49.9	47.0	34.4	42.3	53.4	62.7	55.3
	H		15.7	10.7	11.2	19.8	21.3	21.3
Neighbors bother children	F	57	17	9	10	5	6	10
	V	14.4	25.8	14.8	19.2	6.8	9.0	13.2
	H		29.8	15.8	17.5	8.8	10.5	17.5
Each bothers other	F	32	1	5	8	12	2	4
	V	8.1	1.5	9.2	15.4	16.4	3.0	5.3
	H		3.1	15.6	25.0	37.5	6.3	12.5
No one bothers anyone	F	75	13	20	9	12	7	14
	V	19.0	19.7	32.8	17.3	16.4	10.4	18.4
	H		17.3	26.7	12.0	16.0	9.3	18.7
No answer	F	34	4	6	3	5	10	6
	V	8.6	6.1	9.8	5.8	6.8	14.9	7.9
	H		11.8	17.6	8.8	14.7	29.4	17.6
Total	F	395*	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

*Total number of younger school-age children (7-14) in sample.

Among the children who claim that it is the neighbors who bother them, there is a rather small number who complain about neighbors punishing them, although children are normally prone to spreading stories of this sort. The most frequent responses are that when there is conflict over play neighbors reprimand them (one fifth of the total), while few children reply that neighbors complain to their parents about them, hit them, or destroy their toys. Nevertheless we heard complaints of this nature.

> "Neighbors throw water and garbage down on us." (questionnaire no. 101)
>
> "The neighbors really bother us. They scold, swear, and sometimes even throw matches on us." (questionnaire no. 741)
>
> "... there´s a crazy lady who guards the grass by pouring hot water and throwing an iron. She goes crazy and acts like a wildcat." (questionnaire no. 944)

Regardless of how exaggerated these accusations may be, the fact remains that children cannot play in these spots comfortably and without interference. Even if there were not frequent conflict with the neighbors, the awareness of the possibility of arousing someone´s anger is enough to destroy the spontaneity of play. This was expressed calmly by a boy from Titovo Užice.

> "In my building there are lots of people who forbid children to play. You go one place -- they say you´re making noise: you go someplace else -- you´re getting things dirty, so at last you have to go home or a good distance away." (questionnaire no. 961)

8. Parents on Conflict with Neighbors

Although noise is a cause of conflict between children and the neighbors, the great majority of parents report that the neighbors do not complain about the behavior of their children (Table

16). The largest number of complaints about children was registered in Kurlagino Raskršće.[6]

The investigators cross tabulated complaints about children with apartment size and the number of residents in the apartment. The highest percentage of children whose behavior was the subject of comment by the neighbors live in one-room apartments (Table 17). Similarly, the highest rate of criticism by neighbors was registered in the case of apartments inhabited by ~~six~~ FOUR-member families (Table 18).

9. Methods of Conflict Resolution

When complaints are lodged about their child´s behavior most parents reprimand the child. The second most frequent response to complaint is to discuss the matter with the neighbors. The largest group of parents who tried to eliminate the disagreement through discussion with nieghbors was recorded in the lower-standard Titovo Užice complex (Kurlagino Raskršće). The largest groups of parents who resorted to reprimanding the child were from Kurlagino Raskršće and (an equal number) from the lower-standard Sarajevo residential complex (Čengić Vila II).

The great majority of parents of children of this age level reported that their neighbors have no adverse comments on their children´s behavior. The children of these same parents, however, report that the neighbors have made complaints. The number of children whose statements do not correspond with those of parents is quite high -- between a quarter and a third.

The reason for this discrepancy may not be parental insincerity, but the deplorable habit of neighbors of ´settling accounts´ with children instead of talking things over with parents. It is quite understandable that children may be reluctant to relay all of this to their parents. It would seem, taking into account the manner in which parents react to neighbors´ comments and the data of Table 19, that parents and neighbors simply do not confront one another, and that confrontation and the direct resolution of problems is avoided by both parties.

Interestingly, aside from the discrepancy in the viewpoints of parents and children, there is a divergence in the opinions of children of various age levels about the problem of conflict with neighbors. Younger children are more critical: their personalities are still unformed, and they tend to acceed to the judgement of grown-ups. This is perhaps the reason for the differences recorded in Tables 15 and 20.

If we break down the data by residential complexes, it appears that both the younger and the older children from the lower-standard Užice complex most often see themselves as the culprits for conflicts with the neighbors (Tables 15 and 20).

The least tolerant group of children are the younger school-age children from Banovo Brdo and the older school-age children from Čengić Vila II (both are lower-standard complexes). One notes that both categories of children from Čengić Vila II come into conflict with neighbors and do not enjoy the best of relations with their parents, as established in the section on relations between parents and children.

It is interesting that Banovo Brdo has the highest percent of younger children who consider that it is the neighbors that bother them and the highest percentage of older children who do not believe that there is conflict between neighbors and children. It would be difficult to find the reasons for these diverging points of view.

10. The Ground Floor and Play Areas in the Immediate Vicinity of the Building

In accordance with our observations and the statements of children themselves, neighbors most frequently complain about the noise that children make. On the other hand, according to the same sources, the place where children gather together is the area in front of the building entrance, an informal play place, not planned for children. (As we have already seen, the entrance itself was not designed to accommodate social activity.)

Conflict outside the apartment may take on broader dimensions and be more serious than conflict within the apartment, perhaps because it takes place outside of family ties and outside the family group in a spatial environment where no one has clearly defined rights. The public spaces of the building and the open spaces in the neighborhood are at the same time everyone´s and no one´s.

There are several ways of bringing planned play areas (playgrounds) and spontaneous (informal) play areas into greater congruence with one another. One of the methods, the easiest and thus the most frequently encountered in our sample, is to move the playground as far away from the apartment building as possible, thus reducing the effective noise and possible damage caused by play objects. One may also attempt to make the playground more attractive. (The technique of making the entrance unattractive has already been done: adults have no reason to spend any time there.) Although we will refer to this later in the section on playgrounds, we will note here that S. Lazić, a psychologist,[7] has established that grown-ups are repelled by overly large open spaces in new residential developments. They feel discomfort at being the ´center of attention´ and at the lack of any sort of structural backdrop or other spatial-psychological assurance. It would seem to us that there is a similar psychological resistance in the case of children, although we believe that for a small child the social environment is more crucial than the physical environment[8] and moving the playground away from the building does not represent a happy solution, given the lack of maintenance, and the nonexistence of organized play with trained instructors.

Another way of improving the relationship between formal and informal play areas would be to make improvements at the other end -- around the building entrance and in the design of the ground floor itself.

11. Ground-Floor Apartments

Aside from rare cases, the ground floors of the buildings we scrutinized all have apartments. The ground-floor apartments were identical with those on the floors above. In other words, they do not exploit the advantages of a ground-floor location.

-- Ground-floor apartments do not have their own clearly defined terraces opening directly off the apartment: such terraces would eliminate the need for the child to decide where his family´s yard merges into public spaces, a problem he is not old enough to deal with.

-- In all the buildings, including the low, four-family buildings in Sarajevo´s Koševo and the huge apartment towers such as those in Belgrade´s Banovo Brdo, all the ground-floor apartments in our sample are entered exclusively from the stairway area which serves all the apartments. Thus the entrances -- which we have already described as overly narrow -- are not even minimally freed of traffic and noise.

- -- The ground-floor apartments are the smallest, as their area is reduced by the space taken up by the building entrance. Thus there is no conformance to the logical principles that the number of residents should decline from the ground floor going toward the uppermost floor, as should the size of the apartment.

The ground-floor apartments encompassed by our sample have only the disadvantages of their ground-floor position to contend with:

- -- reduced privacy -- [9]
- -- threats to the property and physical integrity of the residents -- by unwelcome visitors (thieves) and by children, whose balls are apt to choose any window to hit.

Consequently, instead of being the most open housing units possessing contact with the ground -- the ground-floor apartments of multifamily buildings are the most shut-in in a spatial and physical sense (window gates, solid-wood doors, and the like), and with respect to the cordiality of the residents of those apartments.[10]

In our opinion, the manner of designing ground-floor apartments to a large extent is the culprit for the conflicts between adults and children. This assumption, however, could be proven only by a special study of two groups of ground-floor apartments -- those designed in the prevailing manner (as a control group), and more imaginatively designed apartments.

PART FOUR: TABLES

House neighbourhood. Table 1

Where does your child like to play		Total	Beograd		Sarajevo		Titovo Užic	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Cent
in the starcase	F	115	6	14	43	15	18	19
	V	4.8	1.5	3.5	10.7	3.7	4.5	4.9
	H		5.2	12.2	37.4	13.0	15.7	16.5
in and in-front of the entrance	F	307	60	39	83	39	56	30
	V	12.8	14.9	9.8	20.7	9.5	14.1	7.7
			19.5	12.7	27.0	12.7	18.2	9.8
in the yard	F	188	41	6	17	43	70	11
	V	7.8	10.2	1.5	4.2	10.5	17.6	2.8
	H		21.8	3.2	9.0	22.9	37.2	5.9
in the neighbourhood yard	F	55	11	3	16	11	9	5
	V	2.3	2.7	0.8	4.0	2.7	2.3	1.3
	H		20.0	5.5	29.1	20.0	16.4	9.1
around the house	F	592	89	96	71	127	108	101
	V	24.7	22.1	24.2	17.7	31.0	27.1	26.0
	H		15.0	16.2	12.0	21.5	18.2	17.1
on playgrounds in the neighbourhood	F	164	17	85	30	20	0	12
	V	6.8	4.2	21.5	7.5	4.9	0.0	3.1
	H		10.4	51.8	18.3	12.2	0.0	7.3
on the street corner	F	37	6	0	2	4	14	11
	V	1.5	1.5	0.0	0.5	1.0	3.5	2.8
	H		16.2	0.0	5.4	10.8	37.8	29.7
on the neighbourhood parking lot	F	37	16	19	2	0	0	0
	V	1.5	4.0	4.8	0.5	0.0	0.0	0.0
	H		43.2	51.4	5.4	0.0	0.0	0.0
nowhere particular	F	26	10	8	0	4	0	4
	V	1.1	2.5	2.0	0.0	1.0	0.0	1.0
	H		38.5	30.8	0.0	15.4	0.0	15.4
does not leave the apartment	F	15	6	2	0	1	2	4
	V	0.6	1.5	0.5	0.0	0.2	0.5	1.0
	H		40.0	13.3	0.0	6.7	13.3	26.7
no reply	F	859	140	124	136	146	121	192
	V	35.9	34.8	31.3	34.0	35.6	30.4	49.4
	H		16.3	14.4	15.8	17.0	14.1	22.4
total	F	2395*	402	396	400	410	398	389
	H	199.4	16.8	16.5	16.7	17.1	16.6	16.2

* The total is twice as big as the sample, because two answers were allowed. A high number of zeros means that over 1/3 of respondents choose only one answer.

House neighbourhood. Table 1a

Where does your child like to play		Total	Age		
			3 - 7	7 - 11	11 - 14
In the staircase	F	115	48	40	27
	V	4.8	5.6	4.9	3.8
	H		41.7	34.8	23.5
in and infront of the house entrance	F	307	128	96	83
	V	12.8	15.0	11.7	11.6
	H		41.7	31.3	27.0
in the house yard	F	188	52	72	64
	V	7.8	6.1	8.8	8.9
	H		27.7	38.3	34.0
in the neighbourhood yard	F	55	22	12	21
	V	2.3	2.6	1.5	2.9
	H		40.0	21.8	38.2
around the house	F	592	187	241	164
	V	24.7	21.9	29.3	22.8
	H		31.6	40.7	27.7
on the playground	F	164	46	60	58
	V	6.8	5.4	7.3	8.1
	H		28.0	36.6	35.4
on the streetcorner	F	37	9	19	9
	V	1.5	1.1	2.3	1.3
	H		24.3	51.4	24.3
On the neighbourhood parking lot	F	37	6	15	16
	V	1.5	0.7	1.8	2.2
	H		16.2	40.5	43.2
nowhere particular	F	26	9	6	11
	V	1.1	1.1	0.7	1.6
	H		34.6	23.1	42.3
does not leave the apartment	F	15	14	1	0
	V	0.6	1.6	0.1	0.0
	H		93.3	6.7	0.0
No reply	F	859	334	260	265
	V	35.9	39.1	31.6	36.9
	H		38.9	30.3	30.8
Total	F	2395*	855	822	718
	H	199.4	35.7	34.3	30.0

*/The sum total is twice as large as the sample because the respondent could choose 2 responses a hieh number of 0 means that many of their chose just one

House neighbourhood. Table 2

Do you let your child go out alone		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čen. vila	Koševo	Kurl. raskr.	Centar
No	F	149	40	10	18	21	14	46
	V	12.4	19.8	5.1	9.0	10.2	7.0	23.4
	H		26.8	6.7	12.1	14.1	9.4	30.9
Yes	F	1016	162	184	168	167	185	150
	V	84.6	80.2	92.9	84.0	81.5	93.0	76.1
	H		15.9	18.1	16.5	16.4	18.2	14.8
J do not care	F	2	0	0	2	0	0	0
	V	0.2	0.0	0.0	0.0	1.0	0.0	0.0
	H		0.0	0.0	100.0	0.0	0.0	0.0
No reply	F	34	0	4	12	17	0	1
	V	2.8	0.0	2.0	6.0	8.3	0.0	0.5
	H		0.0	11.8	35.3	50.0	0.0	2.9
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

House neighbourhood, Table 3

Do you let your child go out alone		Total	Age		
			3 - 7	7 - 11	11 - 4
No	F	149	128	12	9
	V	12.4	29.7	2.9	2.5
Yes	F	1016	269	389	338
	V	84.6	67.1	94.6	94.2
	H		28.4	38.3	33.3
I do not care	F	2	1	0	1
	V	0.2	0.2	0.0	0.3
	H		50.0	0.0	50.0
No reply	F	34	13	10	11
	V	2.8	3.0	2.4	3.1
	H		38.2	29.4	32.4
Total	F	1201	431	411	359
	H	100.0	35.9	43.2	29.9

House neighbourhood, Table 4

Do your parents let you go out alone		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurl. raskr.	Centar
Yes*	F	246	45	46	39	46	36	34
	V	63.9	65.2	69.7	57.4	66.7	58.1	66.7
	H		18.3	18.7	15.9	18.7	14.6	13.8
Sometimes	F	108	12	16	23	20	20	17
	V	28.1	17.4	24.2	33.8	29.0	32.3	33.3
	H		11.1	14.8	21.3	18.5	18.5	15.7
No	F	13	8	2	3	0	0	0
	V	3.4	11.6	3.0	4.4	0.0	0.0	0.0
	H		61.5	15.4	23.1	0.0	0.0	0.0
No reply	F	18	4	2	3	3	6	0
	V	4.7	5.8	3.0	4.4	4.3	9.7	0.0
	H		22.2	11.1	16.7	16.7	33.3	0.0
Total	F	385	69	66	68	69	62	51
	H	100.0	17.9	17.1	17.7	17.9	16.1	13.2

House neighbourhood.Table 5*/

Do you let your child go out alone		Total	Do your parents let you go out alone			
			yes	sometimes	No	No reply
No	F	11	7	1	1	2
	V	2.9	2.8	0.9	7.7	11.1
	H		63.6	9.1	9.1	18.2
Yes	F	362	231	104	11	16
	V	94.0	93.9	96.3	84.6	88.9
	H		63.8	28.7	3.0	4.4
J do not care	F	1	0	1	0	0
	V	0.3	0.0	0.9	0.0	0.0
	H		0.0	100.0	0.0	0.0
No reply	F	11	8	2	1	0
	V	2.9	3.3	1.9	7.7	0.0
	H		72.7	18.2	9.1	0.0
Total	F	385*/	246	108	13	18
	H	100.0	63.9	28.0	3.4	4.7

*/ Interviewed only children ago 11-14

House neighbourhood. Table 6

Where do you object to your child playing		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čeng. vila	Koševo	Kurl. raskr.	Centar
In the star-case	F	461	70	61	64	145	73	48
	V	19.5	17.8	15.4	16.0	35.5	19.1	12.7
	H		15.2	13.2	13.9	31.5	15.8	10.4
In house entrance	F	241	38	34	31	54	42	42
	V	10.2	9.6	8.6	7.7	13.2	11.0	11.1
	H		15.8	14.1	12.9	22.4	17.4	17.4
In the attic	F	32	13	5	1	9	1	3
	V	1.4	3.3	1.3	0.3	2.2	0.3	0.8
	H		40.0	15.6	3.1	28.1	3.1	9.4
In the ceiler	F	19	9	2	0	0	4	4
	V	0.8	2.3	0.5	0.0	0.0	1.0	1.1
	H		47.4	10.5	0.0	0.0	21.1	21.1
On the roof terrace	F	16	8	2	0	0	0	6
	V	0.7	2.0	0.5	0.0	0.0	0.0	1.6
	H		60.0	12.5	0.0	0.0	0.0	37.5
In her/his friend,s home	F	7	0	4	1	1	0	1
	V	0.3	0.0	1.0	0.3	0.2	0.0	0.3
	H		0.0	57.1	14.3	14.3	0.0	1[illegible].3
In house yard	F	23	5	4	5	0	2	7
	V	1.0	1.3	1.0	1.3	0.0	0.5	1.9
	H		21.7	17.4	21.7	0.0	8.7	30.4
in the neighbourhood yard	F	82	12	9	10	28	14	9
	V	3.5	3.0	2.3	2.5	6.9	3.7	2.4
	H		14.6	11.0	12.2	34.1	17.1	11.0
in the open spaces in neighbourhood	F	30	3	6	4	0	9	8
	V	1.3	0.8	1.5	1.0	0.0	2.3	2.1
	H		10.0	20.0	13.3	0.0	30.0	26.7
in the playground	F	8	0	3	4	0	0	1
	V	0.3	0.0	0.8	1.0	0.0	0.0	0.3
	H		0.0	37.5	50.0	0.0	0.0	12.5
on the street	F	445	74	65	103	79	84	40
	V	18,9	18,8	16,4	25,7	19,4	21,9	10.6
			16.6	14.6	23.1	17.8	18.9	9.0
on the parking lot	F	131	27	37	22	19	20	6
	V	5.6	6.9	9.3	5.5	4.7	5.2	1.6
	H		20.6	28.2	16.8	14.5	15.3	4.6
he should play where he likes	F	91	12	23	18	11	15	12
	V	3.9	3.0	5.8	4.5	2.7	3.9	3.2
	H		13.2	25.3	19.8	12.1	16.5	13.2
No reply	F	773	123	141	137	62	119	191
	V	32.8	31.2	35.6	34.2	15.2	31.1	50.5
	H		15.9	18.2	17.7	8.0	15.4	24.7
	F	2359	394	396	400	408	383	378
	N	196.4	16.7	16.8	17.0	17.3	16.2	16.0

House neighbourhood. Table 7

Does your child nevertheless play there		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koš.	Kurlag. raskr.	Cent.
Yes	F	477	75	67	100	62	108	65
	V	42.1	43. 4	35.6	50.0	30.5	58.7	34.9
	H		15.7	14.0	21.0	13.0	22.6	13.6
No	F	463	80	77	75	121	54	56
	V	40.8	46.2	41.0	37.5	59.6	29.3	30.1
	H		17.3	16.6	16.2	26.1	11.7	12.1
No reply	F	194	18	44	25	20	22	65
	V	17.1	10.4	23.4	12.5	9.9	12.0	34.9
	H		9.3	22.7	12.9	10.3	11.3	33.5
Total	F	1134	173	188	200	203	184	186
	H	94.4	15.3	16.6	17.6	17.9	16.2	16.4

House neighbourhood. Table 9

Does your child nevertheless play there		Total	male	female	no response
Yes	F	551	265	204	82
	V	48.6	55.6	44.1	42.3
	H		48.1	37.0	14.9
No	F	582	211	259	112
	V	51.3	44.2	55.9	57.7
	H		36.3	44.5	19.2
No reply	F	1	1	0	0
	V	0.1	0.2	0.0	0.0
	H		100.0	0.0	0.0
	F	1134	477	463	194
	H	94.4	42.1	40.8	17.1

House neighbourhood, Table 10

Why does your child play there		Total	Beograd		Sarajevo		Titovo Uži	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Cent
He likes the place itself	F	12	18	9	7	13	21	4
	V	5.3	9.8	4.1	2.8	7.9	8.0	1.5
	H		25.0	12.5	9.7	18.1	29.2	5.6
Because of his friends	F	344	48	56	85	44	78	33
	V	25.5	26.1	25.2	33.7	26.8	29.5	12.6
	H		4.0	16.3	24.7	12.8	22.7	9.6
He has no other place	F	95	10	2	22	2	23	36
	V	7.0	5.4	0.9	8.7	1.2	8.7	13.7
	H		10.5	2.1	23.2	2.1	24.2	37.9
No reply	F	837	108	155	138	105	142	189
	V	62.1	58.7	69.8	54.8	64.0	53.8	72.1
	H		12.9	18.5	16.5	12.5	17.0	22.6
Total	F	1348	184	222	252	164	264	262
	H	112.2	13.6	16.5	18.7	12.2	19.6	19.4

House neighbourhood. Table 11

Do you use to go far from your home		Total	Begrad		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Cen
Yes	F	150	16	18	25	27	35	2
	V	39.3	23.2	27.3	37.3	40.3	56.5	56.
	H		10.7	12.0	16.7	18.0	23.3	19.
No	F	229	52	47	42	40	26	2
	V	59.9	75.4	71.2	62.7	59.7	41.9	43.
	H		22.7	20.5	18.3	17.5	11.4	9.
No reply	F	3	1	1	0	0	1	
	V	0.8	1.4	1.5	0.0	0.0	1.6	0.
	H		33.3	33.3	0.0	0.0	33.3	0.
	F	382*/	69	66	67	67	62	5
	H	99.2	18.1	17.3	17.5	17.5	16.2	13.

*/ Interviewed only children ago 11-14

House neighbourhood. Table 12

Trafis risk		Total	Banovo brdo	Šumice	Ukupno Beograd	Čengić vila	Koševo	Ukupno Sarajevo	Kurlag. raskr.	Centar	Ukup. T.Užice
The house-ntrance faces the road	F V	35 67.9	-	8	8	1	8	9	8	10	10
Does not face the road	F V	74 32.1	15	10	25	15	8	23	15	11	26
Total	F V	109 100,0	15	18	33	16	16	32	23	21	44

House neighbourhood. Table 13

Entrances facing the traffic road			Banovo brdo	Šumice	Ukupno Beograd	Čengić vila	Koševo	Ukupno Sarajevo	Kurl. raskr.	Centar	Ukup. T.Užice
Less then 3 metters away ~~from it~~	F V	5 14.2	-	-	-	-	-	-	4	1	[illegible]
more then 3 metters away	F V	30 85,8	-	[illegible]	8	1	8	9	5	8	13
Total	F V	35 100,0	0	8	8	1	8	9	9	9	18

House neighbourhood. Table 16

Do your neighbours often complain about your children		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Sumice	Čengić vila	Koševo	Kurl. raksr.	Cent
Yes	F	101	11	18	24	13	24	11
	V	8,4	5,5	9,1	12.0	6,3	12.1	5.5
	H		10.8	17.8	23.7	12.8	23.7	10.8
No	F	100	191	180	176	192	175	186
	V	91,6	94,6	90,9	88.0	93.7	87.9	94.4
	H		17.4	16.4	16.0	17.5	15.9	16.9
Total	F	1201	202	198	200	205	19	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

House neighbourhood. Table 17

Do your neighbours often complain about your children		Total	Number of rooms							
			effciency	one room	1,5 room	2 room	2,5 room	3 room	3,5 room	4 room
Yes	F	101	1	22	5	58	9	6	0	0
	V	8.4	4.0	11.8	11.9	8.3	6.6	6.6	0.0	0.0
	H		0.9	24.7	4.9	57.4	8.9	5.9	0.0	0.0
No	F	1100	24	165	37	640	128	85	6	8
	V	91.6	96.0	88.2	88.1	91.7	93.4	93.4	100.0	100.0
	H		2.2	15.0	3.4	58.2	11.6	7.7	0.5	0.7
Total	F	1201	25	187	42	698	137	91	6	8
	H	1000.0	2.1	15.6	3.5	58.1	11.4	7.6	0.5	0.7

House neighbourhood. Table 18

Number of people in the apartment	Total	Do the neighbours often complain about your children	
		Yes	No
2	F 10	0	10
	V 0.8	0.0	0.9
	H	0.0	100.0
3	F 301	22	279
	V 25.1	21.7	25.4
	H	7.3	96.7
4	F 606	51	555
	V 50.5	54.9	50.5
	H	8.6	91.4
5	F 220	16	204
	V 18.3	15.8	18.5
	H	7.2	92.8
6	F 47	10	37
	V 3.9	9.9	3.4
	H	2.1	97.9
7	F 12	1	11
	V 1.0	0.9	1.0
	H	8.3	91.7
8	F 2	0	2
	V 0.2	0.0	0.2
	H	0.0	100.0
9	F 3	1	2
	V 0.2	0.9	0.2
	H	33.3	66.6
Total	F 1201	101	1100
	H 100.0	8.4	91.6

House neighbourhood. Table 19

Do the neighbours often complain your children		Total	Your neighbours are mad at you	Your neighbours are not mad at you	No reply
Yes	F	24	9	4	11
	V	6.1	7.6	7.0	5.0
	H		37.5	16.7	45.0
No	F	364	108	53	203
	V	92.2	91.5	93.0	92.3
	H		29.7	14.6	55.0
No reply	F	7	1	0	6
	V	1.8	0.8	0.0	2.7
	H		14.3	0.0	85.7
Total	F	395*	118	57	220
	H	100.0	29.9	14.4	55.7

Children asked were 7-11 age category, because they are constdered most dynamic

House neighbourhood. Table 20

Who disturbs whoom		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Centar
Children disturb the neigh.	F	115	20	19	17	20	23	16
	V	30.2	29.0	28.8	25.4	30.3	37.1	31.4
	H		17.4	16.5	14.8	17.4	20.0	13.9
The neighbours disturb you (children)	F	128	22	20	33	24	21	8
	V	33.6	31.9	30.3	49.3	36.4	33.9	15.7
	H		17.2	15.6	25.8	18.8	16.4	6.3
Each other	F	52	12	13	11	7	6	3
	V	13.6	17.4	19.7	16.4	10.6	9.7	5.9
	H		23.1	25.0	21.2	13.5	11.5	5.8
None disturbs anyone	F	73	15	12	6	12	10	18
	V	19.2	21.7	18.2	9.0	18.2	16.1	35.3
	H		20.5	16.4	8.2	16.4	13.7	24.7
No reply	F	13	0	2	0	3	2	6
	V	3.4	0.0	3.0	0.0	4.5	3.2	11.8
	H		0.0	15.4	0.0	23.1	15.4	46.2
Total	F	381	69	66	67	66	62	51
	H	99.0	18.1	17.3	17.6	17.3	16.3	13

PART FIVE: OPEN PLAY SPACES

Open spaces have been categorized on the basis of their spatial clarity, i.e., the continuity of buildings through and about the space. We took this criterion as the fundamental one, more important than configuration, size, and all other standards, because this factor represents one of the basic decisions in the work of the urban designer. Using this standard, we established three possible types of open spaces:

(a) enclosed,

(b) semi-open,

(c) open.

(a) Nowhere in the six apartment complexes did we find any open spaces of the enclosed (atrium) type.

(b) Four of the complexes have semi-open spaces on the Corbusier model of building placement -- a feature of residential complexes throughout the world for the last twenty years.

(c) In two complexes (Belgrade´s Banovo Brdo and Titovo Užice´s Centar), open spaces belong to the open type. Although the buildings are relatively new -- less than ten years old -- they were built in redeveloped zones of the old city where building by building construction prevents the comprehensive shaping of urban space.

1. Criteria for Definition of Playgrounds

The play areas we observed were determined by the choice of apartment complexes in each of the cities.

Since we have chosen to analyze children's activity and behavior in space, our study encompassed playgrounds (designed, built, and used for play) and play areas where children play, regardless of whether those areas were designed for such use.[1]

We considered playgrounds to be planned if we found more than two sorts of permanent playground apparatus (seesaw, swings, slide, etc.).

According to these criteria, the situation is as follows:

-- in Banovo Brdo there is a combination of planned and unplanned playgrounds --

-- in Šumice and Čengić Vila the playgrounds are planned --

-- in the three other complexes children play in areas that were not intended for play or equipped with playground apparatus.

2. Playground Attractiveness

In general, most playgrounds leave an impression of incompleteness and neglect (aside from the one in Šumice). Their incompleteness is not of the sort that intentionally invites children to make additions and completions.

The impression of neglect and functional meagerness is greatest in Kurlagino Raskršće (the Titovo Užice lower-standard complex). At the same time, this town has open spaces that are not only attractive but have the qualities of good urban design and of what might be called urban dignity (Trg Partizana /Partisan Square/). These spaces, however, are conceptually quite the opposite of children´s playgrounds. We would not devote so much attention to playground attractiveness if it were not so directly related to functional variety. A playground that is a ´no man´s land´ does not have the objects that children seek and find useful -- such as, for example, water. (Some towns in England have detailed regulations concerning the upkeep of equipment. The sand in sandboxes, for example, is changed daily.[2])

3. Location and Communication

"Nearness to home is more important to children than the equipment of the playground." Our observations confirmed this assertion from the study, Treiflache fur Kinder. This is true at least for children who go to the playground by themselves. Our observations established that the radius of movement of children between 7 and 11 is about 100 meters from the building entrance. This is an average dimension that may vary, depending on the positioning of the entrance and whether or not the building configuration encourages children to wander off while keeping the entrance in sight.

We think that the proximity of the apartment (parental protection) is even more important than playground size. But in considering proximity we must include the length of vertical communication within the building. This segment of travel calls for much greater effort for a preschooler than walking about in open spaces in the neighborhood (as was previously mentioned in the section on the apartment building). In our sample twenty-four children live on the twelfth story (14 of them in the Centar district of Titovo Užice). Among them there are five-year -olds who are unable to use the elevator on their own. If we figure the average floor height at 2.80 m, the number of stairs per story is 16. The total number of stairs in a building with 13 levels (GF+12) is 208: if continuous, these stairs would measure 76.55 meters in length. This means that within the building the child is forced oto cover three quarters of the distance he permits himself to travel outside.

Preschoolers, at an age when they are advancing from individual play to play with others (between three and five years of age), are characterized by irregular communication with age mates: frequent trips back home under the guise of fetching or returning play equipment are really means of testing whether everything is all right at home, and whether everything (and especially everyone !) is still right there.

Measuring diagonally from the surrounding buildings, all the playgrounds and play areas are less than two minutes´ walking time from the building entrance to the boundary where the playground functionally begins. In establishing distance, if the analysis is to be valid, we must take into account the configuration (incline) of the ground, as well as the vertical travel in the building. Thus, while the Šumice playgrounds and Koševo play areas are closer spatially to the buildings than is true in other complexes, more effort and time is needed to cover these distances. In the experience of our observers -- young adults -- two minutes was the time period required to reach these playgrounds. (For level playgrounds in the sample, two minutes may be said to equal two hundred meters, and for the play areas in Šumice and Koševo, two minutes is equivalent to 120 to 150 meters.) Children, however, need more time to cover these distances. At the age of 6 to 10 years, when the average speed is 70 meters per minute, the distance/time to playgrounds on level ground in our sample is increased by an average of three minutes.

Our observation established that children spontaneously gather and ´hang around´ the building entrance (see data in the table of parents´ replies on child´s favorite play place). As we established in the building inventory, building entrances and ground-floor apartments are not adapted to social activity by parents or children, and so the planned playgrounds in our sample are located in the midst of the available open space. It is uncomfortable to spend any amount of time in and around large and structurally incoherent open spaces, such as those in Čengić Vila II -- there is no physical backdrop, no psychic shelter from the prying eyes of others, and one feels that one is on a sort of stage.

The orientation of the building entrances in relation to playgrounds varies, as might be expected. Most buildings in four residential complexes (Banovo Brdo, Šumice, Čengić Vila, Koševo) have entrances facing away from the playground, while the Centar buildings in Titovo Užice have an equal number facing and not facing the playgrounds. Only the buildings in Kurlagino Raskršće may be said to be clustered around the play areas, with entrances facing them and with covered passages that contribute to a clear demarcation of open spaces, tying together as they do the ground floors of the buildings.

It is of interest that there were no buildings in our sample with walk-through ground floor hallways.

The least suitable relationship between building and playground was found in Banovo Brdo and the Centar district, in the parts of those areas where the high-rise tower is the only building type. In both complexes, the tower's only entrances face heavily used city highways, less than 15 meters (30 paces) away (Graph 1). Statistical data on highway accidents in Banovo Brdo´s Požega Street confirm the poor relation of buildings and highway.

Also of interest are the data on the relation of playground (play area) and pedestrian traffic in the residential complex. All the play areas we observed are located along natural, unplanned pedestrian paths that have been "cut through" by residents themselves in using the open spaces.

We examined the relationship of playgrounds and other land uses in the vicinity, where there was a possibility of conflict. We did not encounter serious conflicts, except for the fact that in two cases (Kurlagino Raskršće and Koševo) apartment buildings effectively prevent sunbathing, and in Kurlagino Raskršće the buildings conflict with playground use. There the entire open space between the buildings -- extending right to the ground-floor apartments -- is taken up with a play area. Consequently the percentage of children having conflicts with neighbors in ground-floor apartments is greater in this complex than in others, as is shown in the section on the immediate surroundings of buildings. Also, our observer noted that in the Sarajevo complex of Koševo a tavern interferes with the use of the playground.

None of the complexes has an adult sport and recreation ground, so it was not possible to examine the relation between these and children's playgrounds.

4. The Fenced-off playground

None of the playgrounds is physically delimited, so the ground area could not be precisely measured. Although the lack of delimitation presented a difficulty in taking a count of the number of children and in clearly determining the field of observation, it is very debatable whether fencing-in of playgrounds is desirable or recommendable.

We asked parents about this.

Playgrounds Table 1

Should playgrounds be fenced-in?

		Total	Ban. Brdo	Sum.	Čen. Vila	Koš.	Kurl. Rask.	Cent.
Yes	F	882	142	101	190	137	172	140
	V	73.4	70.3	51.0	95.0	66.8	86.4	71.1
	H		16.1	11.5	21.5	15.5	19.5	15.9
No	F	286	56	91	10	52	25	52
	V	23,8	27.7	46.0	5.0	25.4	12.6	26.4
	H		19.6	31.8	3.5	18.2	8.7	18.2
N.A.	F	33	4	6	0	16	2	5
	V	2.7	2.0	3.0	0.0	7.8	1.0	2.5
	H		12.1	18.2	0.0	48.5	6.1	15.2
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

The parents were unambiguously in favor of fencing playgrounds (almost three quarters of the total number).

In all lower-standard complexes, there were more advocates of fencing than in the higher-standard complexes of the same city.

Fencing-off playgrounds has both advantages and disadvantages. If it is fenced off, the playground becomes an area of greater safety and protection from traffic, and represents a clearly defined maintenance sector with a special cleaning program. Certain kinds of playgrounds, such as for example "adventure playgrounds ·" are inconceivable without a fence, because certain basic materials must be stored there.

On the other hand, children in the 7 - 11 age group always move about in an area larger than an intentionally laid out playground. Thus fencing is advisable only for extraordinarily large complexes for children (quite rare within the city limits) for playgrounds for very young children. However, such fencing should be in the form of natural barriers only (hedge, ditch, mound, etc.)

5. Playground Size

It is difficult to establish an optimal correlation between the size of the playground and the number of children using it. (We found a similar view in the book Freiflache fur Kinder).

The reason for this is that the feeling of spatial adequacy is subjective, and depends on the focus of attention on an object or an activity. In attempting to determine the adequacy of available space, we relied upon the subjective opinions of the observers and members of the central research team.

There are many more play spaces in our sample than there are specially designed playgrounds, and so the problem of delimitation was difficult, as was determining the adequacy of the delimited area.

We do not believe in the value of isolated children´s playgrounds, and believe that the attractiveness of a space for children is related to the size and character of the open space as a whole and its attractiveness to all -- children and adults. The most successful area from the standpoint of play was in Banovo Brdo, where a large area -- bordered with residential towers -- has been turned into a wooded park. The attractiveness lies in the area as a whole.

In the playgrounds in our sample, the greatest spatial constricttion was noted in Titovo Užice´s Kurlagino Raskršće. At the same time this residential complex has the largest number of children who like to play outside. One gets a feeling of spatial overproportioning in the open spaces of Čengić Vila II, and to a degree in Titovo Užice´s Trg Partizana, but at no time was the latter thought of as a play space for children.

The most balanced open spaces, those that achieved a midway point between being too restricted and too large, were found at the site we studied in Banovo Brdo. This harmonious impression was created by vegetation and ground configuration.

6. Layout and Facilities

6.1. Functional Subdivisions

A well laid out play area should have functional or spatial subdivisions, since children of various ages have differing needs. Furthermore, at different ages children are possessed of various degrees of independence, and are more and less prepared to deal with danger.

Lest this assertion seem unfounded, we will briefly cite the major needs of various age levels as established by French neighborhood design principles.[3]

Up to two years old: need for quiet, protection, and sun.

Three to six years old:

Need for coordination of physical movement and mental activity and the development of these through exercise. Personal iniative and constructive activity.

Twelve to fifteen years old:

Period of morphological and physiological transformation. Demands for independence. Alternating hyperactivitiy and listlessness, aggressivity and withdrawal, concern with passing fads and continuation of habits.

It goes without saying that needs are the criteria for establishing the proportions of space and for the choice of equipment.

There were no functional subdivisions in the playgrounds in our sample. They were not divided by activity criteria nor by a spatial gradation for various age groups (both youth and adult).

We do not consider playgrounds with two areas -- one with playground equipment and one without -- to be functionally subdivided, since on most of these playgrounds the equipment is haphazardly disposed, showing no functional differentiation, and thus reducing the children's physical security.[4]

We do not believe it possible to arrange the playground in functional subdivisions without simultaneously landscaping larger components of open space, such as were found only at Banovo Brdo.

The environmental and functional diversity of the six playgrounds and play areas may be evaluated by means of:

(a) natural conditions,

(b) types of equipment and their suitability for various age levels and for use in various seasons,

(c) arrangement of existing elements.

6.2. Natural Conditions

Natural conditions refers to:

-- ground configuration

-- ground surface[5]

-- greenery.

Ground configuration may contribute to the creation of separate landscape units and to the creation of more or less sheltered spaces in the playground. (The members of the central research team believe that shelter in some part of the playground is psychologically essential.[6] Banovo Brdo has enough of such places, but the playgrounds of the other five complexes are excessively exposed to the view of parents and passers by.

In the complexes with striking ground configuration (Šumice, Koševo, Kurlagino Raskršće) the topography is not the result of design and did not stimulate the playground designers to exploit it in laying out the playgrounds. Furthermore, the playground designers in the completely level complexes (such as Čengić Vila II) did not think of landscaping any alteration in the topography of the playground terrain (nor of creating any kind of barrier out of natural materials).

In new residential complexes playgrounds are identically uninteresting. In Banovo Brdo, however, environmental variety was created by providing sufficient expanse to isolate various groups of users. Trg Partizana in the Centar district of Titovo Užice does not represent a residential open space in the usual sense, but is a central focal point for the whole town.

The configuration and plasticity of the terrain helps make playgrounds adaptable to the season. It is hard to imagine enjoyable sledding without an incline to slide down.

The configuration of the terrain affects the variety of children´s games. The observers of the Koševo playground (Sarajevo) believe that the configuration of the terrain is the reason for the children´s passiveness in playing, for the ball often goes off into the street, preventing children from the physical scrambling around so necessary to preschoolers and schoolchildren in the lower grades.

Ground surface is an important factor in the playground environment and is important to the physical safety of the child at play. In certain kinds of weather an unsatisfactory surface can put a playground entirely out of use, as is the case with the play areas in Titovo Užice. In Kurlagino Raskršće a slight rainfall renders play areas (functionally unsuitable to start with) so muddy as to be unusable, and in the small playground with play apparatus in the Centar district, neither the swings or the slide may be used because of the puddles that form underneath and in front of them.

To sum up the situation with regard to surfacing: the playground in Banovo Brdo is not only the most diverse environmentally but is also the one with the highest number of surfaces (six). Next comes Sumice, Čengić Vila, and Kurlagino Raškršće with four each. Last are Koševo and Centar in Titovo Užice. Centar is the most ´urban´ of the open spaces and, true to its urban character, is surfaced with a single, very attractive surface (stoneinlay), which is at the same time most unsuited to play activities.

Nowhere did we find sand as a surfacing under play apparatus, although it is well suited to that purpose and the codes of some countries (Germany) make its use obligatory.

There is no grass on the surface of the playgrounds, indicating that the designers somehow do not consider it appropriate.

Where lawns exist they are separated from playgrounds: it is forbidden to walk on them, but they are also poorly maintained.

There is a grassy area about 5 x 5 m very close to the Šumice playground. It is ideal for ´heads only´ soccer games, as is the lawn (about 8 x 4 m) in Titovo Užice.

The greenery (deciduous and evergreen) in the playgrounds is not cared for. There are no tall trees, as these are relatively new developments (10 years or less). The play area in Banovo Brdo is an exception: it occupies a wooded area that is older than the development. This wood was partially cleared when the apartment buildings were put up and when some of the present play apparatus was installed.

The investigators have the impression that in all the open spaces (except for Banovo Brdo) the greenery is standardized, selected either according to the criterion of great durability and low upkeep or according to esthetic criteria that remained unclear to us. We did not note a single instance in which residents or anyone else had planted any supplementary greenery after the official landscaping by the site developer. We did not notice flower beds in any great number in the open spaces of any of the complexes, although these represent the first sign of attachment to the landscaping of the residential environment.

Children will not learn to watch out for plants and greenery unless they learn to appreciate them and care for them.

The playground inventory revealed a greater frequency of trees (four playgrounds) than bushes (three playgrounds). Yet one wonders what children hide behind when they play hide-and-seek. We usually found them hiding behind parked cars.

Greenery is necessary on playgrounds

-- because of the climate (wind, sun),

-- as a partition (between the sections; shield against noise and pollution, barrier against traffic),

-- as compensation for architectural oversight (to protect the privacy of ground-floor apartments, to obscure or highlight certain details, etc.).

In the playgrounds we inspected the disposition of greenery was quite haphazard and lacked any individuality. The planting in each of the playgrounds was equally mediocre, except for Čengić Vila and Kurlagino Raskršće, where there was a striking absence of any greenery. Greenery was not employed as a visual separation between parts of playgrounds nor even around the playground itself in cases where the terrain was level and overly extensive (Čengić Vila).

6.3. Playground Equipment

Here we are concerned with the suitability of existing equipment for:

- various types of games (physical activity, imaginative activity, organized activity, and the use of playground apparatus),
- various age groups,
- girls/boys,
- season of the year,
- or by establishing the absence of necessary equipment.

Children of various ages have differing needs.
Play is the child's basic activity. Thus we will analyze equipment from the standpoint of activities: (a) as noted by observers summer and winter, and (b) as cited by children as their favorites.

With respect to equipment, in the open spaces of the playgrounds children appear to be as deprived as adults. Our general impression is that the equipment is scanty and not kept up. We believe this is the case because expensive equipment requires upkeep, and this calls for larger outlays, more organization, and constant effort. Given the type of open spaces (in most developments they are unenclosed, using the Corbusier model of building placement), it is impossible to provide effective supervision, and thus effective maintenance is also not practicable.

Equipment for children:

- simple, basic materials (sand, water, etc.),
- materials for building things (boxes, boards, bricks, etc.)
- natural elements and obstacles (climbing trees, tree stumps, etc.),
- portable equipment (balls, ropes, dolls) and objects not belonging to the playground,
- playground fixtures.

We did not encounter basic materials (sand, water, etc.) to the extent that psychologists recommend. Sand was available in two higher-standard developments (Koševo and Šumice) and one lower-standard complex (Banovo Brdo). There was no water, which requires daily attention, in any of the playgrounds (except at Trg Partizana, where there is a decorative, shallow pool, with a completely different purpose).

Natural elements and obstacles are most useful for children from 3 to 6 years old. Although on the playgrounds one would expect to see natural elements more often and in greater number given the traditional, rural background of most urban residents, these are almost completely absent in the open spaces of the six apartment developments.

Our observers noted tree stumps only in two places (Kurlagino Raskršće and BAnovo Brdo) and a felled, dried tree trunk in one place (Banovo Brdo -- a single trunk). Banovo Brdo is the only site with trees old enough to withstand climbing by children, and the woods there are the only place where children are not forbidden to do so.

Natural elements and obstacles may conform quite handily with the configuration of the terrain (ditch, embankment, trench, tunnel, cave).

Building materials (building games: boxes, boards, bricks, etc.) were not encountered in any of the playgrounds. Experience abroad has shown how popular building games are with somewhat older children. Building is a special form of self-expression and may be as important as more traditional forms of competitive play.

Adventure playgrounds, however, require a special enclosure for the storage of tools and materials and also special upkeep. Furthermore, the very concept of adventure playgrounds has yet to appear here in Yugoslavia.

6.3.1. Playground Fixtures

Playground fixtures may in our opinion be divided into three categories, depending on the relationship the child establishes between himself and the equipment.

stationary equipment	monkey bars of all kinds, including those that the child crawls through, steps, jumps, or hangs on, or squeezes through.
moving equipment	seesaw, swings, spin carrousels of all kinds that have circular or two-phase action driven by the child (by swinging, etc.) or by a motor.
composite equipment	slides of all sorts, in which there is a clear distinction between the child's action and his being impelled down an incline. This sort of apparatus is a kind of intermediate type, somewhere between the two types of apparatus.

There is no question that playground fixtures are of interest for only one age group -- the youngest. The rigidity of this equipment aids the development of muscles, suppleness, agility, and the coordination of mind and body. In using such equipment the child discovers and develops his abilities.

The table below supplies data on the type and amount of equipment to be found on playgrounds.

Playgrounds Table 2

	Belgrade		Sarajevo		T.Užice	
	Ban. Brdo	Sumice	Cengić Vila	Koševo	Kur. Ras.	Centar
Monkey bars etc.						
		2		1		3
	2		2	1		
Swings, etc.						1
	4	2				2
Composite (slides)						1
Total	6	4	2	3		7

It is immediately apparent that the playgrounds have very little playground 'hardware'.

-- There is no piece of equipment from the first category (monkey bars) in any of the playgrounds.

-- Kurlagino Raskršće has no playground fixtures in any of the play areas, and in the same town, Centar has the most equipment (7 pieces), more than Banovo Brdo (which has the most broken equipment).

-- Two of the lower-standard complexes have significantly less playground apparatus (in Čengić Vila, according to the count of the observers, the apparatus consists of but two broken seesaws).

-- Moving play equipment is the most common. Stationary and composite fixtures, however, are more important to the child's development than moving equipment, which is the least passive of the enumerated types. Of all the moving equipment in the sample, only one piece was in working order.

Aside from equipment, playgrounds should also have certain facilities for the playground users: a canopy or other covering to serve as protection in the event of rain, a children's toilet, a tool cupboard or workshop, adult recreation facilities of some kind (cafe, pool table, pinball machines). Yet none of these were found in any of the playgrounds.

An open play space cannot properly 'live' without enclosed facilities in the vicinity.

The absence of such enclosed facilities handicaps older children the most represented in our sample by 11 to 14-year-olds. These youngsters do not play on playgrounds but gather around some sheltered place in the vicinity -- a building entrance or in a covered passage. What they need is some spatial distinction emphasizing the difference between their age group -- which thinks of itself as grown up -- and the children still playing on the playground equipment.

Although we noted the indisputable popularity of basketball among children and youth in these complexes, we found no sports facilities other than a small soccer field.

There are no facilities intended for the entertainment of the older children in the residential structures (see chapter on clubs), nor in the neighborhood, nor even in the city itself. Older schoolchildren and their entertainment is a completely different problem from that of providing for children´s play, and consequently the equipment involved is very different. Preschoolers require much more space than most of the playgrounds provide (if the definition of ´playground´ is limited to the paved areas). By contrast, boys and girls of 11 to 14 are inclined to gather in areas that are smaller than one might recommend, and then pair off, choosing hidden spots and avoiding supervision. Along with a reduced demand for space, however, this age level also has a preference for expensive equipment (stero equipment, photo laboratories ´do-it-yourself´ equipment, and the like).

On three winter days we observed two barracks buildings in Banovo Brdo, filled with boys 11 to 14 years old. They were ardently working the pinball machines.

Concerning the reasons for the popularity of these pinball machines we have the following assumptions:

- objective, quantified results (expressed in ´goals´or point totals), superior skill is revealed -- a factor that satisfies the craving of this age group for immediate success and frequent self-confirmation;
- possibility of mixing with older age groups (boys up to 20 years old were noted in the two buildings);
- possibility of smoking cigarettes as a sign of virility and maturity;
- the act of paying, purchasing services -- as in a cafe -- that are not free.

The observers noted a preference for "Flipper" (table soccer) over pinball machines. We interpret this as a result of the type of game: table soccer is a team game (and a competitive one), while individual players take turns at the pinball machine (alternating competition). Table soccer is actually cheaper, but this does not seem crucial to us for an age group which spends money it has not earned.

6.3.2. Equipment Use and Preference.

According to parents, children´s favorite equipment by far is the moving equipment (swings and seesaws). We were able to establish a preference for a certain type of playground equipment for three tenths of all children (Table 3). This figure probably reflects a complete absence of equipment or even of a playground as such in some of the sites we examined (such as Titovo Užice´s Kurlagino Raskršće, for instance).

The investigators were surprised by the unpopularity of the slide, but perhaps this is a result of the fact that suspended equipment is more common on playgrounds than slides.

Moving equipment is the favorite in the two Belgrade developments, which might be explained by the generally artificial environment of the metropolis and the long tradition of children´s playground equipment there. This custom is less evident in smaller cities, but equipment is less necessary because there are more natural elements that may be used in play (trees, etc.).

It is interesting that the parents in Kurlagino Raskršće replied to the question about children´s favorite equipment despite the fact that there is no equipment there. We must conclude that their children play on playgrounds elsewhere.

We attempted to find out whether parents noted that their children display any outstanding aversion to any particular equipment (Table 4). Those answering in the affirmative to this question (not more than 6% of the total sample) specified with equal frequency suspended equipment, stationary equipment, and the slide, so that it is impossible to extract any useful information for future designers.

The largest group of parents who think they have noticed their children's disinclination toward certain equipment was noted in the Belgrade lower-standard development, a place with a wooded area where children can climb up and jump off trees and which offers possibilities of much more interesting play than playing seesaw. The smallest number was noted in Kurlagino Raskršće (again, understandably).

We attempted to go beyond likes and dislikes and find out whether there is any evidence that particular pieces of equipment are more or less dangerous than others (Table 5). The data indicate that the largest group of children falling in this category had been injured on swings.

Swings are a type of playground equipment for which German codes specify sand as a ground cover. (We have noted that this type of equipment is uncommon on playgrounds, but when broken it presents a great danger.)

Although the total number of injuries indicated on the table is not large, one should note that the largest age group (11 to 14) does not use playground equipment at all. Additionally, the number of parents who assert categorically that their children do not suffer injuries on playground equipment amounts to only one tenth of the total sample.

7. Playthings on the Playground

As a rule playgrounds are very poorly equipped. Aside from a few pieces of standard equipment, they are without any play objects (such as old cars, boards and boxes for building, etc.) that could come in handy for play purposes.

Given the meagre supply of playground aids, we attempted to determine what the children themselves bring to the playground.

Children generally bring from home manufactured, standard toys. Most common are balls, which one encounters even in winter in great number on playgrounds and play areas. According to our records ´weapons´ (a real arsenal of toy guns, including machine guns and pistols) take a close second place to balls.

As is only to be expected, there is a big difference between summer and winter: the latter has a much more limited number of activities and play aids. The winter section of our list identifies only sleds.

The commonest summer play aids are those traditionally considered masculine (balls and toy guns). There is no corresponding difference in the number of boys and girls present on the playgrounds. On the contrary, in most cases there is an equal number of each.

There is a large number of junior bicycles on the playgrounds. Although its positive effect on the child's physical development is indisputable, a bicycle remains a means of individual play, and a very expensive one at that. This may be the reason why we failed to encounter them on the playgrounds in the lower-standard developments.

One is hard pressed to cite many playthings used for games with rules played by a number of children together (marbles, jump ropes, elastic skipping bands).

8. Play Area Activities

At the verg beginning of our work (in devising the instruments for observing playgrounds) we divided children's activities into several subgroups in order to simplify processing. The first two subgroups are not play related, but are a common form of children's behavior in play spaces.

Play Classification

Calm activities	Movement
sitting and talking	walking in a group
sitting and looking at other children	walking alone
sitting and reading	
standing	

Active play

- play equipment
  - seesaw
  - swings
  - monkey bars
  - slide
- play with unattached equipment
  - skipping rope or elastic bands
  - bicycle riding
  - roller skating

Playing ´let´s pretend´

- making cakes
- teacher and pupils
- mother and children
- doctor and patients
- cowboys and Indians
- Partisans and Germans

Games with rules

- tag
- hide-and-seek

Ball games

- catch
- soccer
- basketball
- volleyball
- dodgeball

Building games

- building with sand
- building with mud
- building with other materials brought by children
- play with water

Our observations of the playgrounds established that there was a strikingly higher number of children sitting and talking on playgrounds than those engaging in any other activity. This is all the more startling since (as we have emphasized) it is usually children under eleven on the playgrounds -- and this age group is typically in constant motion. One probably could not find evidence of the quality of children´s play areas more eloquent than the following figures: of the 512 children on the playground in three days of observation, 115 were sitting and talking (Graph 2).

If we examine the types of activities on playgrounds, we see that play activities do not require an area with special facilities -- games and activities such as hide-and-seek, tag, bicycle riding, skipping in and out of elastic bands, jumprope, etc. (Graph 3).

As opposed to these activities, playing ´let´s pretent´ and building games were almost completely absent on the playgrounds and play areas we observed. During the three days of observation, there were no more than ten children playing ´let´s pretend´ (the most common activities were Partisans-Germans, cowboys and Indians, and mother and children).

There were no building games on the playgrounds.

There were no differences between the three cities as to game types. Play conditions were similar on the playgrounds, and nothing else is to be expected.

9. Favorite Games

According to the children´s replies, the children of 7 to 11 most often play rule games (Table 6)[7]. Next in popularity were ball games. The percentages for both groups were about one third of the total number of children of this age level (the first group something over that, the second group somewhat under).

No particular activity predominated in any one residential complex.

The same table shows that building games were not popular among the 7 to 11 group.

One tenth of the younger schoolchildren cite playground fixtures as a favorite play aid. It is of interest that the largest number of such answers was noted in Čengić Vila II, and that none of the Banovo Brdo children much likes playground fixtures. It is difficult to interpret this distribution of replies, but it is our feeling that some sort of ´environmental satiation´ is at work: children from an intrusive, highly urbanized environment place a higher value on the natural environment when it is at hand, and conversely, children from a sparser environment -- being closer to nature -- thirst for ´manufactured´ entertainment. Both groups desire only what they have already encountered, and as a rule whatever they rarely experience -- whatever is extraordinary -- is more attractive.

Most of the older schoolchildren specify ball games -- more than one half of the total sample (Graph 4a). This is only to be expected for an age level at which play turns into competition, and games into sports.

Ball games are followed by rule games, which are a type -- or precursor -- of sports duels.

Above eleven years of age playing on playground fixtures loses its attraction, for it is too mechanical for a creature that wants to prove itself in mature thought and reasoning.

Symbolic games are too childish, too frivolous for someone trying to rod himself of childish illusions (or perhaps to exchange them for those of youth).

Construction games are even less represented than in the previous age level.

The 11 to 14 age level is characterized by the termination of "play" in the ordinary sense of the word.

All the games (except ball games) have more adherents among girls than among boys in this age group.[8] Comparing the percentages within sex categories, the percentage of girls citing passive activities is twice as high as the percentage of boys, suggesting that girls of this age are more withdrawn than boys. There are more girls who enjoy walking as an activity -- the percentage is almost four times as high as for boys. The situation is the same with games with rules -- the percentage of girls is almost three times as high.

Concerning ball games, boys of 11 to 14 display a decided predominance (in none of the girl-dominated games does female dominance amount to 71.8%).

10. Playground Supervision

When we asked parents who should supervise playgrounds we had in mind overseeing the children and not tending playground equipment and facilities (Graph 4b).

Few parents saw themselves in the role of playground supervisor. One fifth of the total number of parents were prepared to entrust this duty to an older, retired person. The largest group, more than one third, thought that supervision should be exercised by some community organization. Only a bit more than one tenth thought supervision unnecessary.

Parents are thus nearly unanimous in believing that the playgrounds -- even as they exist at present (without tools or materials, or the possibility of ´occupational injury´) -- require supervision.

11. Concepts of Best Play Areas

Bearing in mind the barrenness of the playgrounds we scrutinized, we attempted to find out directly from the children what they would like to have in the way of play facilities that their present playgrounds lack. We are aware of the fact that children can only talk about what they have already encountered. And in fact, it turned out that children mentioned seesaws, basketball hoops, soccer grounds, and there was only occasional mention of adventure playgrounds.

> "I´d like a playground with various tools for building little huts for kids -- a place to come to where we could get tools and build huts out of boards. When we finished we could play in them." (Boy, fifth grade, Belgrade)
>
> "We could play anything there. There should be nails, boards, sawhorses, and rope." (Boy, fifth grade, Titovo Užice)

The older children -- particularly boys of 11 to 14 -- stated their preference for sports equipment (Graphs 5 and 6). It is interesting that basketball hoops were preferred above soccer goals, suggesting that basketball is favored by this age group over soccer. Children of this age group do not completely lose their interest in playground fixtures, while all other popular sports facilities (swimming pool, golf links, skating rink, tracks) were specified by less than one tenth of the total number of answers.

The wishes of girls of this age level are well expressed by the following response (which also shows how little recreation existing playgrounds offer them).

> "My girlfriends and I spend a lot of time at a tobacco stand. We sit on the sidewalk, talk, sing, and write in our diaries. There is a paved area with lawns around it. We like to meet here most of all because there are lots of people passing by." (Girl, sixth grade, Titovo Užice)

Our observations revealed that the older children rarely appear on the playgrounds, generally taking the ´evening shift,´ taking their turn at a time when mixing with younger users does not expose them to the risk of being considered ´kids.´ So we attempted to find out what facilities -- other than the playground -- they considered to be neighborhood necessities (Table 7).

The most desired facility (something more than a quarter of the total number of children of this age) was a play field. Second in popularity (over one fifth of the total number of children of this age level) was a record club.

One tenth of the children believe that they and their neighborhood age mates need hobby clubs. This figure is not high, but is slightly higher than the number of those who would like a library and movie theater. Tennis and ping pong had a surprisingly small number of advocates.

Cross tabulated with residential district, play fields were most popular in Kurlagino Raskršće, soccer and basketball courts in Banovo Brdo, tennis in Sumice, swimming pools in Koševo and in both Belgrade complexes (obviously we are confronted with a desire for elite facilities that is feasible in larger towns). Children specified hobby clubs and libraries most frequently in Čengić Vila, while record clubs are extraordinarily attractive to the children of Koševo.

Children of this age group have a mark[illegible]esire to find shelter from the prying eyes of grown-ups. We encountered a large number of responses speaking of improvised, ´secret,´ or ´semi-secret´ meeting places.

> "We fix up a dugout in the woods and cover it with leaves -- that is where we play. We like it because it reminds us of the way our forefathers lived." (Box, fifth grade, Belgrade)
>
> "The secret place where my friends and I meet is my friend Saša´s basement. We´ve built a bench out of boards and put up a colored light bulb that we swiped from the Palas Hotel. I like this spot because I can exchange important experiences with my friends here." (Boy, seventh grade, Titovo Užice)
>
> "We have a secret hideout that is called the ´secret of the yellow lions.´ We often get together there. We have our own band there. That is where we play." (Box, seventh grade, Belgrade)

Activity in these places is probably more intense than in specially designed playgrounds, especially because children made these places for themselves.

12. Adventure Playgrounds

Building games are so crucial to children's development at a certain age level that in many parts of the world adventure playgrounds have been established as a separate functional type. This obliges us to go beyond mere commentary on the existence or nonexistence of building materials on the playgrounds we examined and to say something about this particular playground type, regardless of the fact that it was not represented in our sample -- or perhaps precisely for that reason.

The basic concept of adventure playgrounds is the need to provoke children into an active stance toward play. One relates to objects most actively when one tries to alter and adapt these objects to one's own purposes. Adventure playgrounds offer children the possibility of using their imagination and creating their own setting, to be used in any way they want.

Adventure playgrounds have several important advantages.

-- Building is a good way of observing the relationship between goals, means, and methods that link the two.

It requires the use of all the senses, and demands thought as to how to combine various elements into an integrated whole.

-- Building activities, like rule games, involve joint effort for the attainment of joint objectives. This requires the development of self-discipline. Joint effort leads to the practice of cooperation. Attention is directed to the object which is now the objective of all, and the success of the entire group, and vice versa.

-- In building activities children see that their work has continuity, that it is more than a series of unrelated, separate sequences.

-- Building stimulates imagination. The exercise of this faculty directly influences the child's psychic development. Building activities involve them more comprehensively than any other sort of play activity.

This does not mean that building should become the only activity children engage in when they want to play. If this were so, play would be boring and monotonous. Consequently, all other types of playground are equally important, for only a free choice of activity can prevent what is creative play from becoming dull and uninspiring.

Adventure playgrounds were first developed in Denmark in 1943. The idea came from a Danish professor, S. T. Sørensen, whose book, Open Spaces in Town and Country (1931) notes that:

"Perhaps a larger playground might be built housing various used objects -- junk, cars, boxes, pieces of wood..." The architect Danfink took up the idea in 1943 and laid out the first adventure playground in Denmark.

Parents are much less inclined toward adventure playgrounds than children are. In response to our question of whether they would choose for their children a traditional playground with play fixtures or a playground with building materials, two thirds of the parents responded in favor of the traditional playground. The other possibility seems more risky, untidy, unhygienic, unattractive.

Their answers, however -- like the answers of the children about their idea of a playground -- should be taken with reservations. Until something other than the traditional playground appears in Yugoslavia, and until likes and dislikes for various playgrounds have a chance to be tested, the attitudes of both parents and children are only theoretical and abstract.

Adventure playgrounds assume several prerequisites, particularly concerning playground organization.

-- The playground must be fenced off so that building materials cannot be removed.

-- The playground must have a special facility for storing materials and tools.

-- A playground of this type requires supervision of children at work (possibility of injury, building instructions, etc,) and control over the material and tools to ensure that they are put back in place after use, etc.

-- An adventure playground requires a continuous supply of material and tools.

These factors make this type of playground expensive, and this is certainly one of the reasons why this playground type has not been tried in Yugoslavia. Another reason lies in the conservatism of the very concept of playground in Yugoslavia.

13. Adult Recreation Facilities

As already mentioned, the youngest age group in our study does not go to the playground alone. In other words, from birth to seven years of age the child is closely watched by its parents.

One might organize play fields for adult recreation alongside children's playgrounds and thus combine active adult recreation and the watching of children. (Children have a greater need for the psychological assurance of parents in the vicinity than for actual insurance against injury.)

Most of the parents we queried (81%) replied that they considered it a very good idea to set up an adult play field in the vicinity of the children's playground. This percentage holds for parents of all age levels in our sample except for the oldest group (45 50 years old).

Open Play Spaces Table 8

Do you favor an adult play field in conjunction with the children's playground?

			Belgrade		Sarajevo		T. Užice	
		Total	Banovo Brdo	Šumice	Čengić Vila	Koš.	Kurl. Rask.	Centar
Yes	F	979	141	156	183	170	168	161
	V	81.6	69.8	78.8	91.5	82.9	84.4	82.1
	H		14.4	15.5	18.7	17.4	17.2	16.4
No	F	157	29	39	8	24	30	27
	V	13.1	14.4	19.7	4.0	11.7	15.1	13.8
	H		18.5	24.8	5.1	15.3	19.1	17.2
N.A.	F	64	32	3	9	11	1	8
	V	5.3	15.8	1.5	4.5	5.4	0.5	4.1
	H		50.0	4.7	14.1	17.2	1.6	12.5
Total	F	1200	202	198	200	205	199	196
	H	99.9	16.8	16.5	16.7	17.1	16.6	16.3

At the park-play area at Banovo Brdo, it was noted that unoccupied parents are overcautious, restricting the spontaneous behavior of children. (Observers noted that children usually play alone when accompanied by grown-ups, whether parents or assistants, and assistants are even less permissive.)

We believe that facilities for active adult recreation would attract parents and reduce their exaggerated attentiveness. We also believe that play fields and children's playgrounds should receive integrated treatment, as young people are also interested in play fields when they come to the age to consider children's games frivolous and to want to do what parents do.

In our residential complexes, however, even benches are a rarity: there is only one in Čengić Vila and none in Kurlagino Raskršće. The park at Banovo Brdo has thirty benches, but that is, after all, a park and not a children's playground. The number of benches in Čengić Vila is a surprise -- it does not correspond to our concept of the traditional Sarajevo custom of sitting in front of one's building as a way of maintaining social communication.

PART FIVE: TABLES

Playgrounds. Table 3

What playgrounds equipment does your child like		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. rask.	Cent.
Swings	F	496	143	158	21	68	52	54
	V	29.8	50.7	61.2	8.1	23.4	18.8	18.0
	H		28.8	31.9	4.2	13.7	10.5	10.[illegible]
Climbing sculptures	F	75	24	14	4	13	9	11
	V	4.5	8.6	5.4	1.5	4.4	3.2	3.7
	H		32.0	18.7	5.3	17.3	12.0	14.7
Slides	F	63	22	7	13	9	5	7
	V	3.8	7.8	2.7	5.0	3.1	1.8	2.3
	H		34.9	11.1	20.6	14.3	7.9	11.1
Other	F	15	7	6	1	1	-	-
	V	0.9	2.5	2.3	0.4	0.3	-	-
	H		46.7	40.0	6.7	6.7	-	-
None particular	F	5	3	-	1	-	-	1
	V	0.3	1.1	-	0.4	-	-	0.3
	H		60.0	-	20.0	-	-	20.0
No playground equipment	F	21	-	-	1	11		8
	V	1.3	-	-	0.4	0.3	4.0	2.7
	H	-	-	-	4.8	4.8	52.4	38.1
No reply	F	994	83	73	221	198	200	219
	V	59.6	29.4	28.3	84.4	68.3	72.2	73.0
	H		8.4	7.3	22.2	19.9	20.1	22.0
Total	F	1669	282	258	262	290	277	300
	H	139.0	16.9	15.5	15.7	17.4	16.6	18.0

Playground. Table 4.

Playground equipment which your child does not like		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koš.	Kurl. raskr.	Centar
Swings	F	30	11	11	4	2	1	1
	V	1.8	3.9	4.2	1.5	0.7	0.4	0.3
	H		36.7	36.7	13.3	6.7	3.3	3.3
Climbing sculptures	F	35	9	7	4	7	4	4
	V	2.2	3.2	2.7	1.5	2.4	1.5	1.4
	H		25.8	20.0	11.4	20.0	11.4	11.4
Slides	F	32	8	3	5	2	4	10
	V	1.9	2.8	1.2	1.9	0.7	1.5	3.4
	H		25.0	9.4	15.6	6.3	12.5	31.3
Total	F	1	-	-	-	1	-	-
	V	0.1	-	-	-	0.3	-	-
	H	-	-	-	-	100.0	-	-
None particular	F	166	51	51	9	28	11	16
	V	10.1	18.1	19.8	3.4	9.7	4.1	5.5
			30.7	30.7	5.4	16.9	6.6	9.6
No reply	F	1385	203	186	240	250	246	260
	V	84.0	72.0	72.1	91.6	86.2	92.5	89.3
			14.7	13.4	17.3	18.1	17.8	18.8
Total	F	1649	282	258	262	290	266	291
	H	137.3	17.1	15.6	15.9	17.6	16.1	17.6

Playgrounds.Table 5

Equipment where your child got hurt		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koš.	Kurl. raskr.	Centar
Swings	F	35	7	14	3	8	1	2
	V	2.1	2.5	5.4	1.2	2.8	0.4	0.6
	H		20.0	40.0	8.6	22.85	2.85	5.7
Climbing sculptures	F	13	5	1	1	5	1	-
	V	0.8	1.8	0.4	0.4	1.7	0.4	-
	H		38.45	7.7	7.7	38.45	7.7	-
Slides	F	21	3	2	5	6	3	2
	V	1.3	1.1	0.8	1.9	2.1	1.1	0.7
	H		14.3	9.5	23.8	28.5	14.3	9.5
Other	F	2	-	-	-	2	-	-
	V	0.1	-	-	-	0.7		
	H					100.0		
None	F	166	61	44	2	23	12	24
	V	10.1	21.6	17.1	0.8	8.0	4.5	8.2
			36.7	26.5	1.2	13.9	7.2	14.5
No reply	F	1409	206	197	251	243	249	263
	V	85.6	73.0	76.4	95.8	84.7	93.6	90.4
	H		14.6	14.0	17.8	17.2	17.7	18.7
Total	F	1646	282	258	262	287	266	291
		137,1	17.1	15.7	15.9	17.4	16.2	17.7

Playgrounds. Table 6

Which game to you like best		Tot.	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koš.	Kurl. raskr.	Centar
Non motoric	F	4	2	0	0	1	0	1
	V	1.0	3.0	0.0	0.0	1.4	0.0	1.3
	H		50.0	0.0	0,0	25.0	0.0	25.0
Motoric games	F	12	0	1	5	1	3	2
	V	3.0	0.0	1.6	9.6	1.4	4.5	2.6
			0.0	8.3	41.7	8.3	25.0	16.7
Games with rules	F	44	7	8	4	7	9	9
	V	11.1	10.6	13.1	7.7	9.6	13.4	11.8
			15.9	18.2	9.1	15.9	20.5	20.5
Games on the equipment	F	144	27	26	21	23	21	26
	V	36.5	40.9	42.6	40.4	31.5	31.3	34.2
	H		18.8	18.1	14.6	16.0	14.6	18.1
Games with ball	F	129	19	19	17	24	25	25
	V	32.7	28.8	31.1	32.7	32.9	37.3	32.9
	H		14.7	14.7	13.2	18.6	19.4	19.4
Symbolic games	F	42	6	3	5	13	6	9
	V	10.6	9.1	4.9	9.6	17.8	9.0	11.8
	H		14.3	7.1	11.9	31.0	14.3	21.4
Constructive games	F	7	4	0	0	2	1	0
	V	1.8	6.1	0.0	0.0	2.7	1.5	0.0
	H		57.1	0.0	0.0	28.6	14.3	0.0
No reply	F	13	1	4	0	2	2	4
	V	3.3	1.5	6.6	0.0	2.7	3.0	5.3
	H		7.7	30.8	0.0	15.4	15.4	30.8
Total	F	395	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

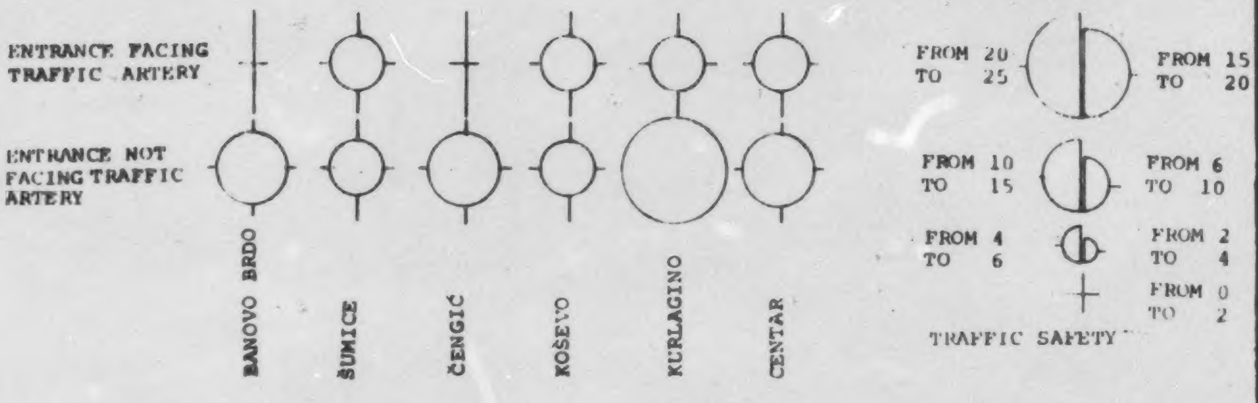
Playground.Table 26

			Beograd		Sarajevo		T.Užice	
What do you need		Total	Banovo brdo	Šum.	Cengič vila	Koševo	Kurl. rask.	Cent.
Sporting grounds	F	199	19	44	31	24	45	36
	V	26.0	13.8	33.3	23.0	17.8	36.3	35.3
	H		9.5	22.1	15.6	12.1	22.6	18.1
Football playgrounds	F	23	16	3	4	0	0	0
	V	3.0	11.6	2.3	3.0	0.0	0.0	0.0
	H		69.6	13.0	17.4	0.0	0.0	0.0
Basket-ball	F	25	14	7	4	0	0	0
	V	3.3	10.1	5.3	3.0	0.0	0.0	0.0
	H		56.0	28.0	16.0	0.0	0.0	0.0
Tennis	F	10	3	4	2	1	0	0
	V	1.3	2.2	3.0	1.5	0.7	0.0	0.0
	H		30.0	40.0	20.0	10.0	0.0	0.0
Table tennis	F	2	1	1	0	0	0	0
	V	0.3	0.7	0.8	0.0	0.0	0.0	0.0
	H		50.0	50.0	0.0	0.0	0.0	0.0
pool	F	35	8	8	5	9	1	4
	V	4.6	5.8	6.1	3.7	6.7	0.8	3.9
	H		22.9	22.9	14.3	25.7	2.9	11.4
Amateur clubs	F	76	11	19	20	7	10	9
	V	9.9	8.0	14.4	14.8	5.2	8.1	8.8
	H		14.5	25.0	26.3	9.2	13.2	11.8
Libraries	F	74	16	8	22	14	10	4
	V	9.7	11.6	6.1	16.3	10.4	8.1	3.9
	H		21.6	10.8	29.7	18.9	13.5	5.4
Disco-clubs	F	156	22	23	23	40	24	24
	V	20.4	15.9	17.4	17.0	29.6	19.4	23.5
	H		14.1	14.7	14.7	25.6	15.4	15.4
Movie theaters	F	68	6	11	10	25	8	8
	V	8.9	4.3	8.3	7.4	18.5	6.5	7.8
	H		8.8	16.2	14.7	36.8	11.8	11.8
Park	F	19	3	0	1	2	8	5
	V	2.5	2.2	0.0	0.7	1.5	6.5	4.9
	H		15.8	0.0	5.3	10.5	42.1	26.3
Other	F	9	6	0	3	0	0	0
	V	1.2	4.3	0.0	2.2	0.0	0.0	0.0
	H		66.7	0.0	33.3	0.0	0.0	0.0
No reply	F	70	13	4	10	13	18	12
	V	9.1	9.4	3.0	7.4	9.6	14.5	11.8
	H		18.6	5.7	14.3	18.6	25.7	17.1
Total	F	766+/	138	132	135	136	124	102
	H	199.0	18.0	17.2	17.6	17.6	16.2	13.3

+/ Interviewed children 7-14

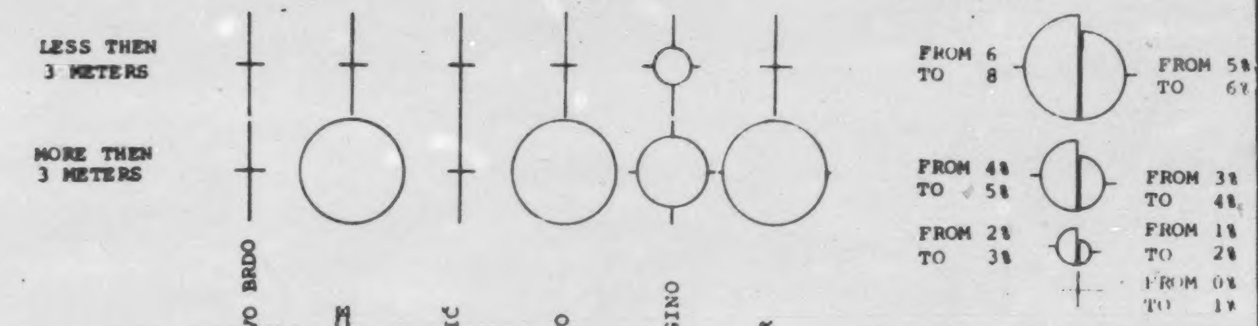
PART FIVE: GRAPHS

PLAYGROUNDS GRAPH



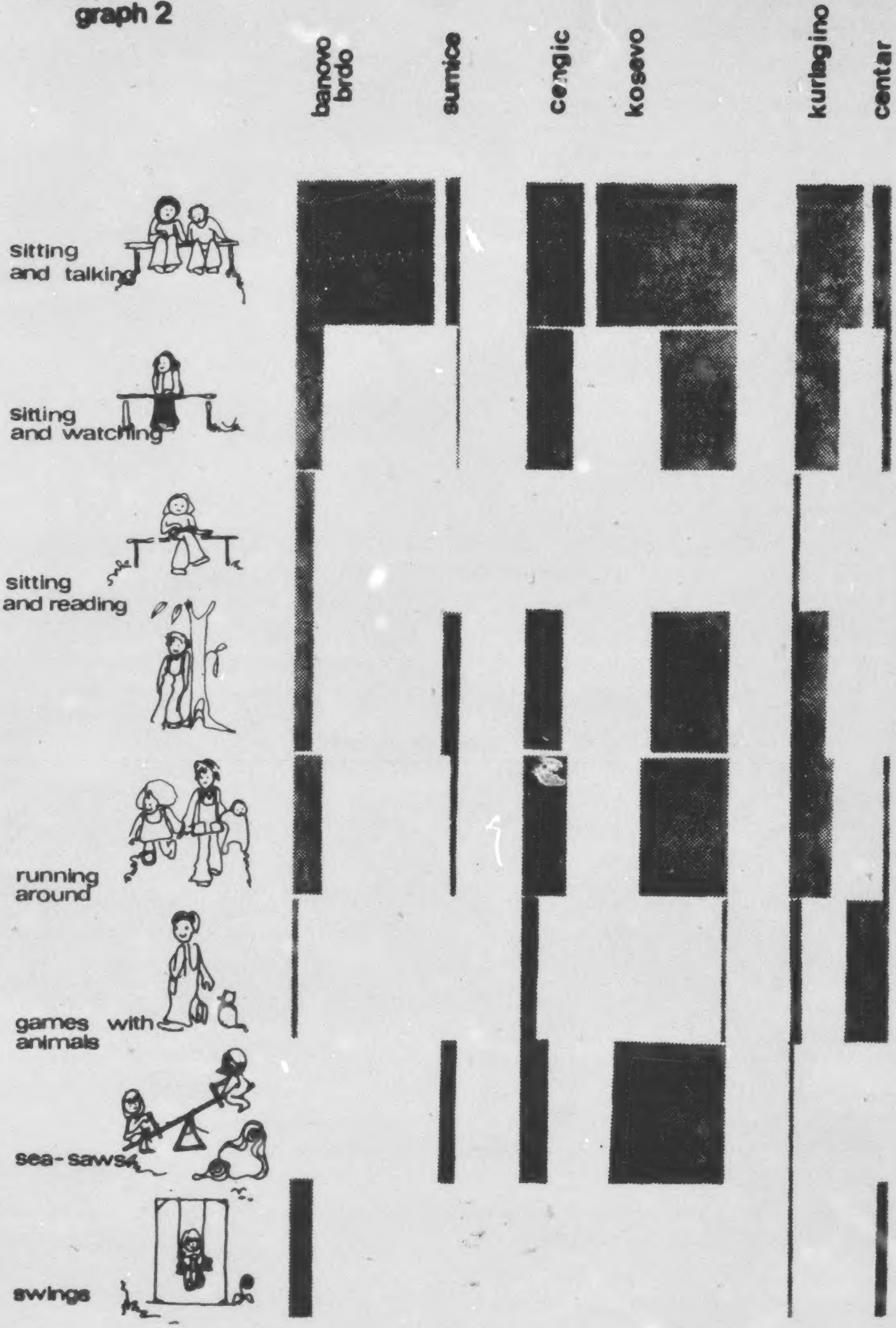
TRAFFIC SAFETY

PLAYGROUNDS GRAPH. 1A

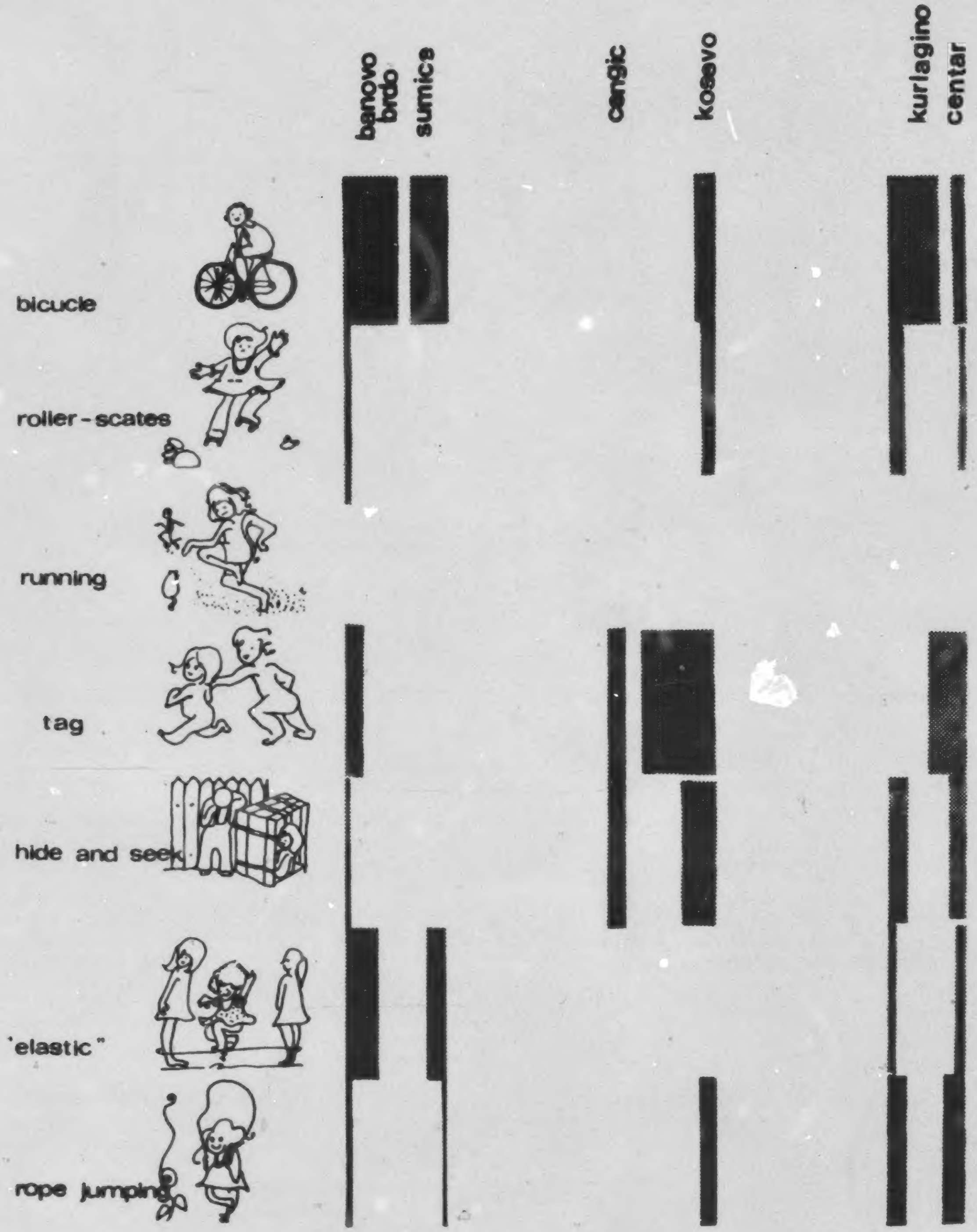


HOW FAR IS THE ENTRANCE FROM THE TRAFFIC ARTERY

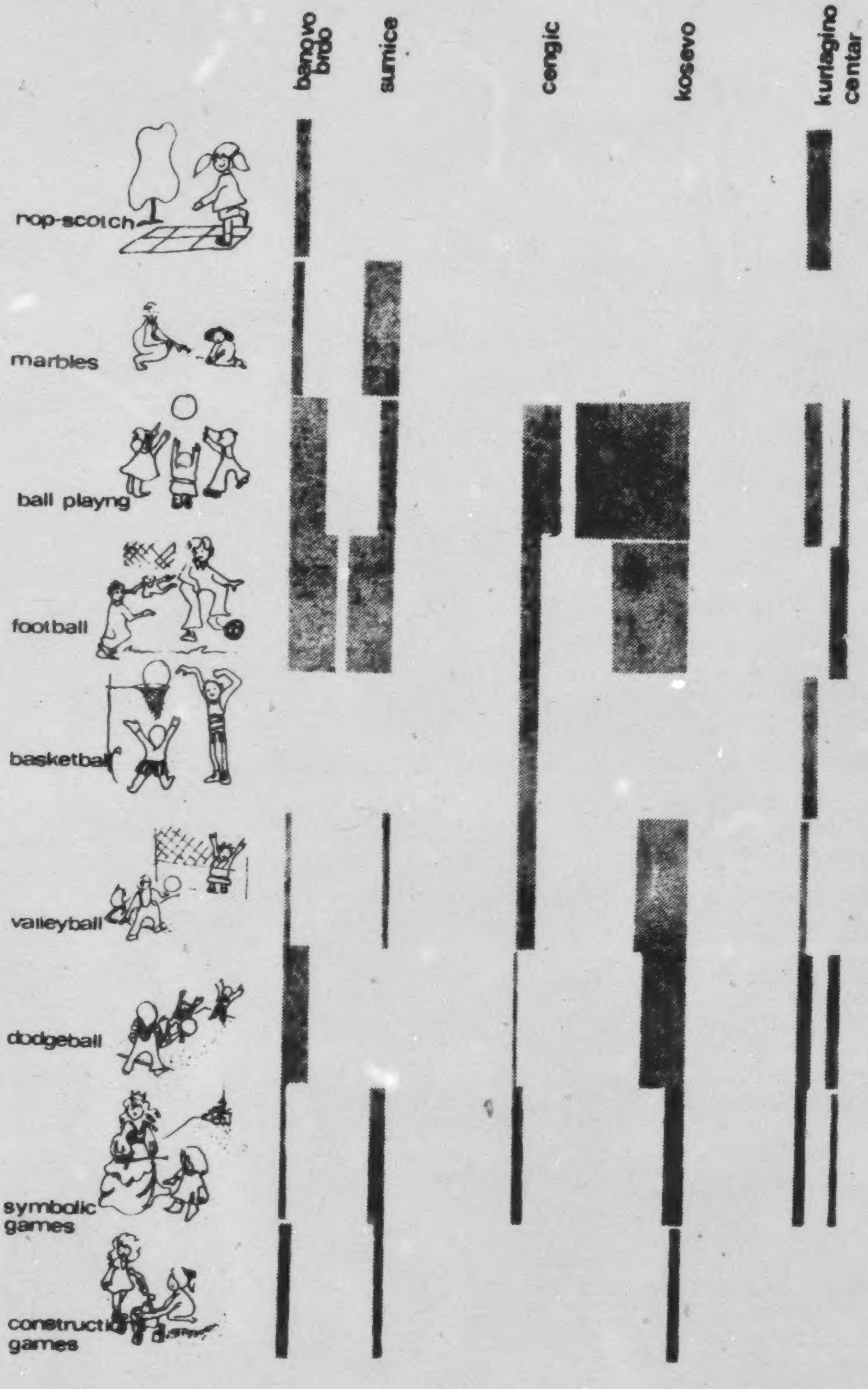
playgronds
graph 2



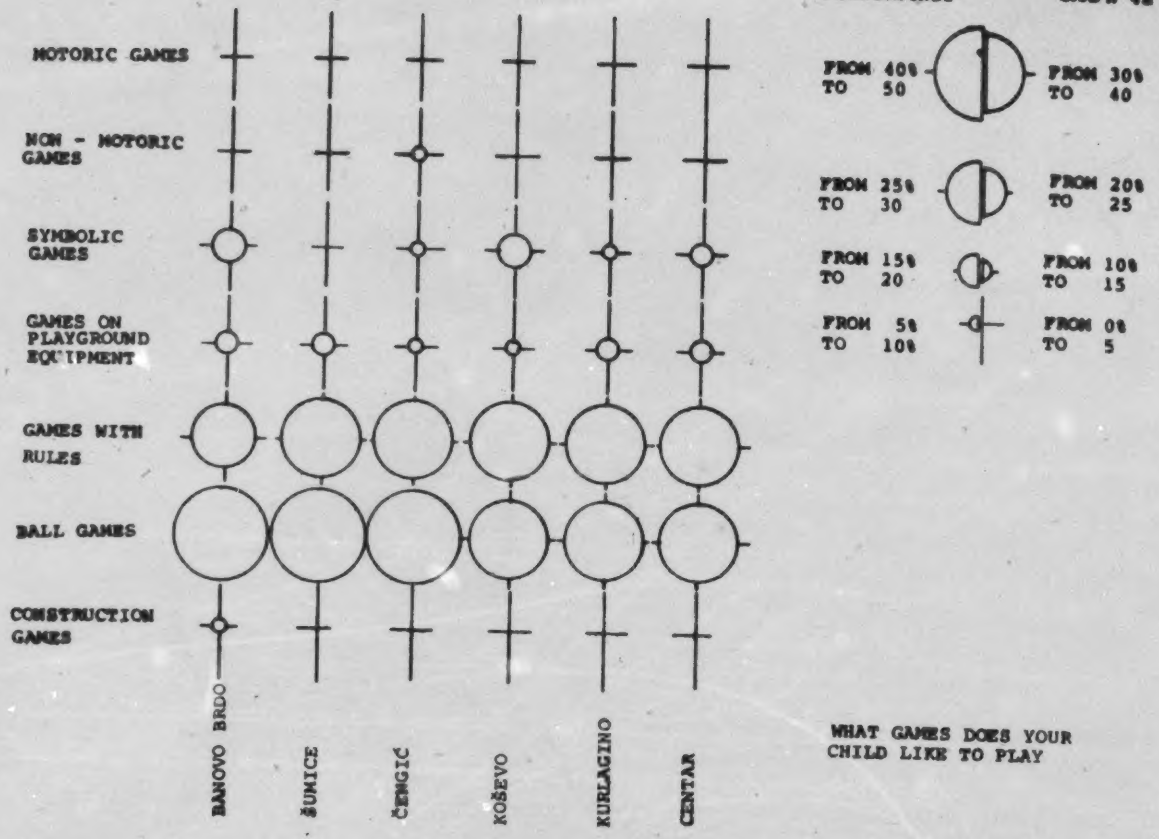
playgrounds
graph. 3



playgrounds
graph. 4

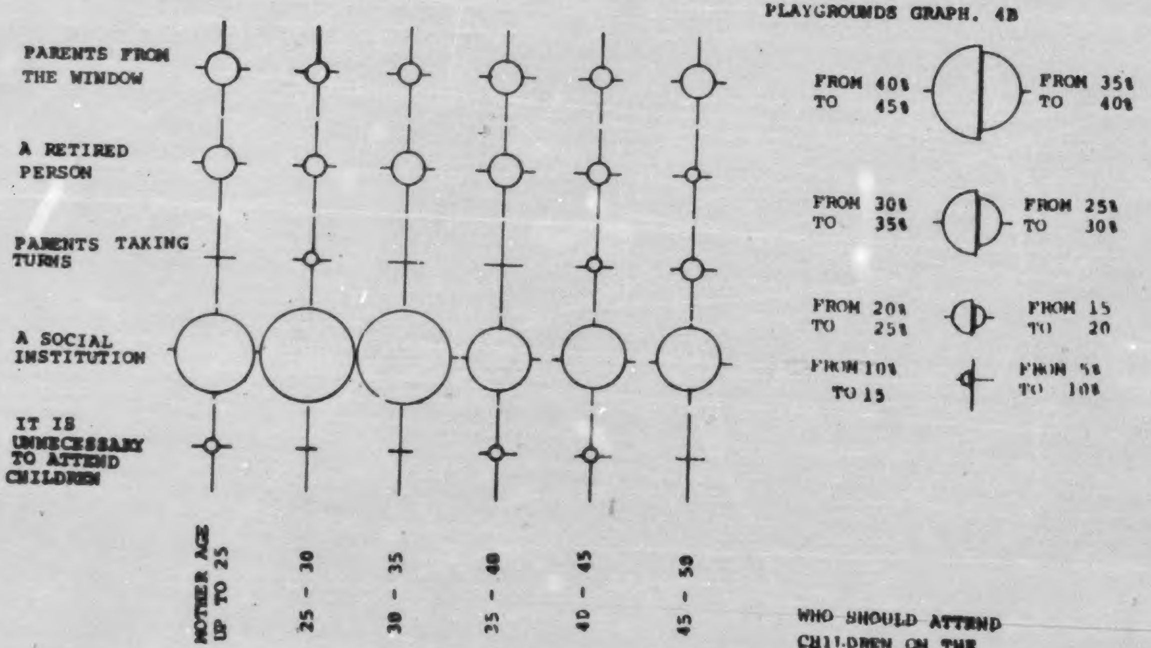


PLAYGROUNDS GRAPH 4a



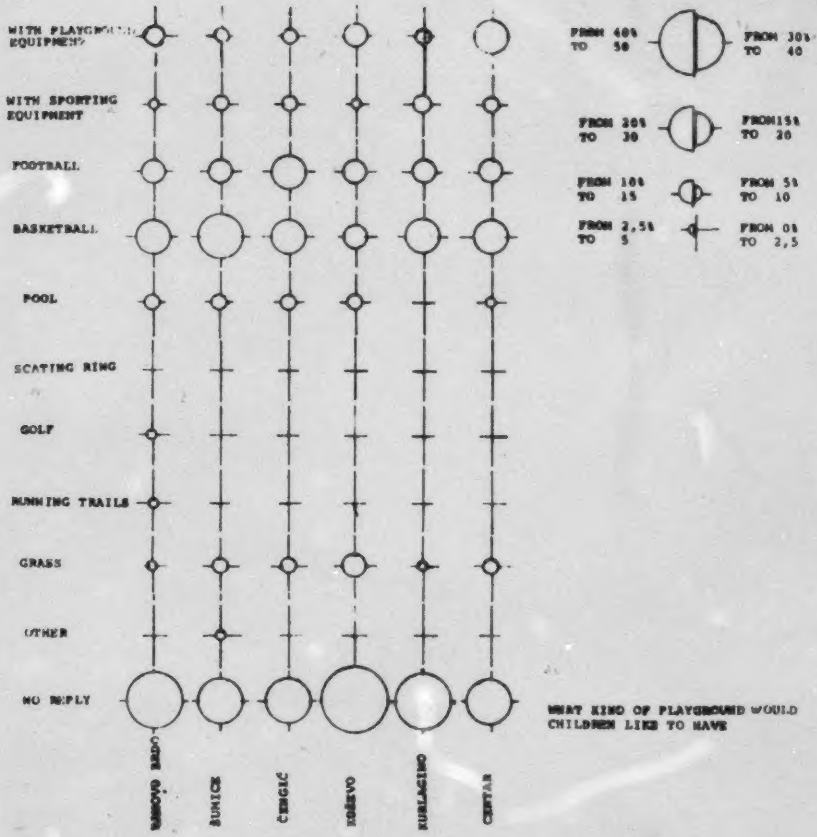
WHAT GAMES DOES YOUR CHILD LIKE TO PLAY

PLAYGROUNDS GRAPH. 4B



WHO SHOULD ATTEND CHILDREN ON THE PLAYGROUND

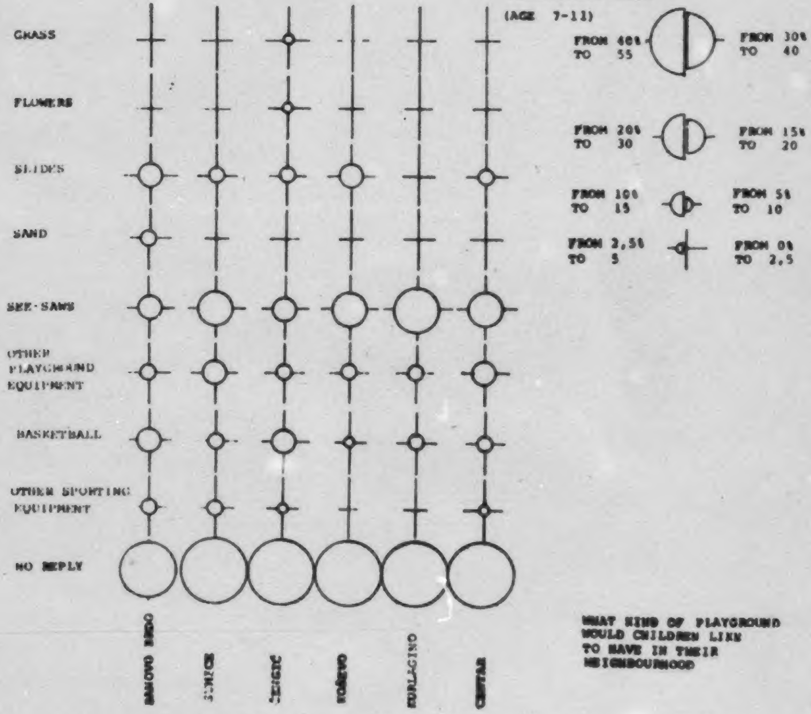
PLAYGROUNDS GRAPH 5



WHAT KIND OF PLAYGROUND WOULD CHILDREN LIKE TO HAVE

PLAYGROUNDS GRAPH 6

(AGE 7-11)



WHAT KIND OF PLAYGROUND WOULD CHILDREN LIKE TO HAVE IN THEIR NEIGHBOURHOOD

PART SIX: DAYCARE CENTERS

1. Architectural Characteristics

In addition to the apartment and its immediate surroundings, children also make use of the daycare center for play and games. Our investigation included a study of daycare centers, their facilities, and the way those facilities are used in the care of children.

Our investigation encompassed five daycare centers, two each in Belgrade and Sarajevo and one in Titovo Užice.[1]

Of the five daycare centers, four structures were specially designed for the care of children. Only one structure -- the daycare center built in 1971/72 in Banovo Brdo -- was of standardized design. The oldest center was built in 1961/63: two were built in 1968/69: and one was built in 1967/70. None of the buildings was built in stages but all were built from start to finish in a single stage. Similarly, none was designed for additions at a later time. All the buildings are of classic construction, using conventional building materials.

All the centers are satisfactorily located. Four of them are independent buildings, and only one -- in Titovo Užice -- is attached to an adjoining apartment structure.

Three of the structures are all on one floor, while two have an upper floor, generally housing nursuries (Banovo Brdo and Titovo Užice).

All the daycare centers have roof terraces, but they are inaccessible. In each of the structures the teachers complained about being unable to use the flat roof, which for a small additional cost could be very serviceable and would certainly be much used.

We heard complaints about the terraces in all the centers. At Banovo Brdo, where the structure was completed in 1972, there is no terrace opening off the ground floor, and upstairs there is only one balcony located off the room that houses the nursery children. Children of one to three years of age use the balcony, but there is no such outdoor space for the older children. The terraces in the Šumice center are not used: although they open directly off the section rooms, the teachers do not permit the children to go out onto them from these rooms. Their reason is that children would track sand andmud from the yard back into the rooms. Teachers have correspondingly ruled that children must exit by way of the cloakroom which leads onto the yard rather than the terraces, which accordingly remain unused. The terraces in the Čengić Vila center are almost completely roofed over, except for one small part. They are surrounded by a high wall and resemble claustrophobic, sunless boxes, and thus are avoided by the teachers.

The Titovo Užice center (the oldest of the structures) has one small terrace. It is used only in winter. Children come out onto it group by group for short periods of time.

We established that all the centers have special facilities for each age group. In two centers various age groups are mixed together, and in three there is no contact between various age groups.

2. Capacity

Two thirds of the children in our sample do not attend daycare centers: 23% of these children have need of daycare facilities but for some reason are unable to use them.

Each of the centers we studied had enrolled children beyond their optimal capacity -- some by one third, some by one half, and some were more than 100% above planned capacity (Table 4).

All the centers are new and well equipped. Nevertheless, overenrollment has led to violations of established norms governing the teacher/child ratio and the minimum usable floor area per child.

Daycare Table 4

	Belgrade		Sarajevo		T.Užice
	Ban. Brdo	Šum.	Čen. Vila	Koš.	Kur. Rask.
Planned number of children	125	60	80	120	100
Current number of children	203	121	120	160	150
Excess number of children	78	61	40	40	50
Overenrollment in %	62%	102%	50%	33%	50%

According to present codes for planning, constructing, and furnishing preschool institutions (established in Belgrade in March 1972 by the Belgrade Education District and the City Child Welfare Foundation) the range of recommended gross floor areas per child for this age is $8m^2$--$7.2m^2$--$6m^2$ ($5.4m^2$ net).

In the centers we investigated the average per child area ranged from $1.5m^2$ to $1.4m^2$ of usable floor area. The teacher/child ratio in the centers we studied were almost double (Table 5) the code recommendations (which prescribe a ratio of 1:6 to 1:24 depending on age level).

The centers are .currently attended chiefly by children whose parents both work and whose parents' income is low. These are, in fact, the only possible criteria, given the existing shortage of facilities. This shortage is so severe that instead of attempting to serve as many children as possible with the unique daycare center program of socialization, training, and education, the most rigid selection of children must take place.

Daycare Table 5

	Belgrade		Sarajevo		T.Užice
	Ban. Brdo	Šum.	Čen. Vila	Koš.	
Planned number of children per section	16-24	16-24	16-24	16-24	16-24
Present number of children per section	40	33	30	32	35
Excess children per section	20	13	10	12	15
Excess in %	100%	65%	50%	60%	75%

Parents with larger incomes must pay more for enrolling their child in a center. (Some parents pay twice as much as parents in the low-income category, and parents with very low incomes pay no fees at all.)

Children whose mothers do not work or whose parents have high incomes have poor prospects for admission to a daycare center.

Teachers have told us that, because of overcrowded conditions parents enroll their child in a daycare center before he or she is born, before the parents even have a name for the child.

The number of rejected applications is hard to establish. Parents often try to enroll the same child in several centers. According to staff estimates about 150 applications are turned down each year in one center.

It is customary to admit only babies to the centers. The other age level slots are already filled through reenrollment of children already in the center. Once parents enroll their child in a center, his place is permanently filled until he enters school.

The acceptance of children over and above the maximum is discouraged by a policy of establishing the daycare center grant in accordance with the number of child-care sections and not according to the number of children in the center. Since the number of teachers is limited, the number of child-care sections is also limited. And yet the number of children per section always exceeds the planned quota. One solution would be to create more sections. However, this creates problems since the center must pay teachers out of its budget, which is fixed.

On the other hand, the number of daycare centers is increasing very slowly, so that the major factor determining how many children will or will not enjoy the advantages of this social service is the good will of daycare center directors and teachers.

Can the problem be solved by more rapid and more economical construction? Perhaps the solution lies in replacing the present construction methods, using conventional materials and requiring long periods of time, with inexpensive prefabricated systems. Perhaps the adoption of more functional procedures would lead to quicker, less painful methods of resolving problems in this area.

It is often asserted that prefabricated structures are uncomfortable, substandard, and no less expensive than conventional structures. Certainly this problem cannot be successfully resolved at the city level. Agreement among all interested parents throughout the country would allow a quicker and more successful resolution of current problems. Prefabricated construction calls for standardized, mass production and overall coordination: only measures such as these can reduce the cost and time of construction.

3. Functions

During his stay in the daycare center, the child engages in the following activities: play, education ("hobbies"), eating, and sleeping. For each of these functions the center allots a space and schedules a time.

In the following centers all activities take place in the dayroom of each respective age group: Šumice, Banovc Brdo, and Koševo. The Čengić Vila center has a separate dining room and in the Titovo Užice center children eat in the entrance hall.

Teachers believe that single-purpose rooms are an unrealistic ideal, but that no room should serve more than two purposes.

Teaching is carried out through play, and hobby activities are always held in the dayroom, where children also play. What should be added, then to play: sleeping or eating? On the basis of their experience teachers believe that eating should be separated from the section rooms which may then serve as sleeping rooms as well as playrooms.

In our opinion it would be worth considering the proposal to set up all these activities in a large area divided into subareas devoted tothe three major activities: one area, with tables permanently set up, for eating; another , with beds permanently set up, for sleeping; and the largest space devoted to play and hobbies. Such areas would contain side by side small, protected subareas for shelter , and open spaces. One of the reasons for the teachers' proposal of such a design is their idea that the daycare center should be organized so as to suggest an apartment.

From here on we will consider both the most important needs and activities of children in a daycare center, and the adequacy (quality of design and equipment) of facilities.

3.1. Sleeping

In general, no adequate arrangement has been found for sleeping in daycare centers -- the storage and type of beds, etc. The rooms of daycare centers must serve a number of functions, and since all activities usually take place in a single room, a number of problems arise regarding sleeping -- a function requiring special treatment.

It is customary to keep the beds in a special storage cubicle in the section room. Each day the beds are taken out, set up for naps, and then replaced in the storage area. This system requires a great deal of time and effort by staff. The passage through which 30 bulky beds must be carried twice each day is very narrow, and its walls as well as the walls of the section rooms bear the scars of this daily chore. The beds take time and effort to set up requiring several assistants whose labors must be paid for out of the center's already limited funds. Furthermore, the time children spend waiting is a factor to be taken into account.

When the beds are set up, they take up the entire floor area of the room and leave insufficient space to approach each individual child. If a child vomits after lunch, one has to climb over the beds of others to reach him.

One may cite the gross area and the total usable floor area of these rooms, but after the beds have been set up one is concerned with the available floor area of the section rooms -- the area remaining after the cots have been set up. According to the codes for planning, constructing, and furnishing preschool institutions (Belgrade Education District and the City City Child Welfare Foundation, Belgrade: March, 1972) the passage space between children's beds should be 50 cm wide.

Since the number of children per section is always higher than the planned number (often twice as high) setting up additional beds requires elimination of the already narrow passage between cots. This calls for either a special sleeping area or a significantly enlarged floor area in the section rooms.

One solution to the storage of beds is to fix them to the wall. When they are to be used, the beds are simply lowered into place.

This type of bed has its advantages: it is easily and quickly set up, and since it is permanently fixed in place, every chi can be assigned "his" bed. But in order to utilize such beds, the walls must be solid enough to take the weight of the beds in an upright position. (In Banovo Brdo, where the beds are of this type, the center director complained about the beds falling down from the walls, which are constructed of a soft, porous material.)

Some think that children's beds should be permanently set up in a special area or in a part of the section room to be used exclusively for sleeping. This system would be excellent from the standpoint of cleanliness, and would obviate the time and effort required to set up the beds every day. In our opinion this system also has a very important psychological advantage. When the child knows which is his bed and has a definite identification with it, he falls asleep more quickly and sleeps more peacefully, with a greater feeling of assurance and security.

Teachers are sometimes undecided whether children should be put to bed after lunch in their regular clothes and sleep on beds without bedding, or whether children should be changed into pajamas and sleep with bedclothes on the beds.

The major reason for the first method is to save time and effort in changing the child (particularly if he is very young) and in making up the bed. We believe that from a psychological standpoint it is much more advisable to have the child sleep in pajamas in a bed with bedding. Changing is an element in the ritual of the daily nap, a preparation for sleep. It is the beginning of relaxation, an opportunity for the child to prepare himself mentally for passivity and sleep. Beds with bedding are much more comfortable. The child sleeps more soundly, with a fuller experience of rest.

There are physiological reasons for changing children before the nap. Everyday clothing is often insufficiently roomy as children grow fast at this age. In various sleeping positions this clothing binds and pinches, and the child cannot take the most comfortable position and relax.

3.2 Eating

In two of the centers (Čengić Vila and Titovo Užice), all sections eat in a common dining room, an area with tables to which all the children come at definite times.

It is our impression that the teachers we spoke with are not in favor of joint dining rooms like these. This concept has several criticisms. The area is overly large, and resembles a barracks room rather than the child's world of intimacy. Furthermore, it is impossible to devote enough individual attention with such a large number of children. It is difficult to keep track of whether, how, and how much a child has eaten, or why he has not eaten. A particularly important criticism is that the atmosphere in a common dining room differs too greatly from a family atmosphere. (This is an example of a general dilemma: should a center have the atmosphere of the apartment and of family life, or should it differ from these. This is an important topic calling for further investigation.)

Thus it seems more desirable for children to eat in the section rooms rather than all together in a common dining room. The teachers assert, however, that it is difficult to maintain an adequate level of cleanliness in the section rooms, which house all activities. The section rooms are used for playing, drawing, etc. These tables get in the way when the children start horsing around and want to run around the room. Large-scale section rooms, with special-purpose subareas would be a better solution.

3.3 Auxiliary Facilities

It seems that auxiliary facilities are considered secondary not only in function but also in the mind of the architect. The shortcomings and inadequate furnishings and size of these areas make it difficult for staff to carry out their daily activities.

In the five centers, the cloakrooms are objectively underproportioned and often unsuitably located with respect to the entrance and the section rooms.

It seems that in the design process no attention is given to the functions and activities that are to take place in the cloakroom. The cloakroom is planned and designed merely as a large storage area for children's shoes and clothing. But it is more than that.

It is in the cloak room that parents leave their children and children bid farewell to parents, who are rushing off to work. This is where children take off and put on clothing, which they do very slowly and clumsily. This calls for much more space than exists, and more than the codes call for (an average of $20m^2$ per child, according to the Codes for Planning, Constructing, and Furnishing Preschool Institutions).

After lockers have been installed in the cloakroom, there is very little space remaining. Because of their lack of skill, children need help. The teachers, who should be helping the children take off and put on clothes, cannot get into the cloakroom when all the children are there. Even given the fact that children do not all arrive at the center at the same time, the floor area of the cloakroom remains insufficient because parents accompany their children. When children go out for walks, an entire section puts on clothes simultaneously, and when they come back to the center they all take off their wraps at the same time. Since there is not enough space in the cloakroom, the entire process takes more time than it should.

The sanitary facilities are spatially restricted and in some centers the equipment is not suited to the size of children. At the Šumice center our attention was directed to the fact that if an attendant helps a two-year old dress or undress in a toilet compartment, the door remains open, preventing passage to the fountain. The toilet bowls were previously adult-size, and had to be replaced. The drinking fountains in the bathrooms are too high and cannot be used by the younger children. Their use is further restricted by the large troughs below, which are so wide as to block passage.

There should be laundries in each structure, and particularly in combined nursery-daycare centers, as auxiliaries to central laundry services. Provided the problem of ventilation is solved, laundries can also serve as drying rooms, which we did not see in the five centers. In Koševo, the children´s towels are dried on radiators, because no space was provided for this purpose.

According to the design of the daycare centers, it would seem that storage closets are unnecessary. Teachers, however, assert that they are indispensable, and that this oversight is a barrier to the normal functioning of the center. Shower rooms, parts of terraces, bed-storage areas, and other areas have been in part turned into storage rooms if the center is particularly overcrowded.

There are no areas suitable for housing play accessories, cleaning equipment, the clothing of staff assistants, bulky broken fixtures and objects, and children's outdoor play tools. The storage of these objects takes up space intended for other purposes and hinders the normal functioning, order, and neatness of the centers.

If we want children to stay off the grass, to enjoy flowers, and to be careful not to harm plants, they must be taught by being permitted to take care of plants themselves. If they have the tools for their own garden, or for playing with sand and dirt, a place should be set aside where tools can be washed upon return from outside, and a space where tools can be stored. The other possibility is to lecture them about the flowers and let them wash their tools in the bathroom, as is done in the Banovo Brdo center.

Rooms for isolating a sick child are to be found in all the centers, but in all of them their function has been altered or supplemented. Given the lack of space, teachers see no justification for vacant, unused facilities such as the health codes require. The sick room is most often used for ironing or for storing clean bedding. These rooms are very rarely used for isolation -- 2 or 3 times a year. When the children check in each morning they are carefully looked over. It is the experience of the teachers that a sick child should not completely isolated, as then he tends to feel like a prisoner. It is a good combination of functions to keep the child in a room in which there is an adult at work.

4. Attendance at Daycare Centers

In describing our sample we mentioned that in more than half the sampled families, both the parents are employed. What happens with very young children when both parents are at work?

It is of course very young children who present the greatest problem. When they remain at home they are helpless and unable to keep themselves occupied if there are no adults at home. This is precisely the function of the daycare center: to care for very young children when their parents are unable to do so. Centers are set up to foster socialization, training, and education of children, and to give mothers more free time by taking over some of their duties towards their children.

About one third of the children of the youngest age level (3 to 7) from our sample attend daycare centers (Table 1). Two thirds of the children do not attend, either because it is not necessary, or because they could not be enrolled.

Daycare Table 1

	Total	Belgrade		Sarajevo		T. Užice	
		Banovo Brdo	Šumice	Čengić Vila	Koš.	Kurl. Rask.	Int.
Attend Center	138 32.02	14 20.89	32 43.84	16 20.25	30 41.09	26 37.68	20 28.57
Don't attend center	281 65.20	52 77.61	41 56.16	61 77.22	35 47.95	43 62.32	49 70.00
N.A	12 2.78	1 1.50	- -	2 2.53	8 10.96	- -	1 1.4
Total	431	67	73	79	73	69	70

Daycare Table 2

Reason for daycare attendance							
Children must stay home alone	72 52.17	6 42.86	22 68.75	14 87.50	19 63.33	7 63.33	4 26.92
to socialize with peers	60 43.48	8 57.14	9 28.13	2 12.5	11 36.67	18 69.23	12 60.0
N.A.	6 4.35	- -	1 3.12	- -	- -	1 3.85	4 20.0
Total	138	14	32	16	30	26	20

Parents of children who attend the centers cite that the cent
is indispensable in 52.17% of all cases, because otherwise their child of 3-7 would have to stay home alone when parents are at work. The other reason cited for daycare attendance -- according to Table 2 -- is socialization, the desire for a child to associate with his age mates (in 43.48% of all cases).

The other alternative answers offered (child himself prefers center to being at home, children's friends attend same center) about the reason for daycare center attendance were cited in significantly small numbers, and as second or third choices, since it was possible to give several answers to this question.

There are obvious differences among the residential complexes and particularly among the cities regarding reasons for daycare center attendance. In Sarajevo there were three times as many children attending centers because there is no one to care for them (33 or 71.74%) as compared to those seeking socialization (13 or 28.26%). In Titovo Užice, on the other hand, there were three times as many attending because of socialization (30 or 65.22%) as compared to those attending because the child would otherwise stay home alone (11 or 23.91%).

There are two major reasons why children do not attend daycare centers (Table 3). First, some parents do not have confidence in the daycare center (only 2%), and in other cases there is no need because the child is cared for at home (58%).

There is a second group of parents who would like to send their child to the daycare center but are unable to do so. In some cases (11.34%) the parents are hindered because of family circumstances, and in other cases (again 11.34%) the child could not be admitted because of overenrollment at the daycare center.

Daycare Table 3

Why child does not attend daycare center

		Belgrade		Sarajevo		T. Užice	
	Total	Ban. Brdo	Šum.	Čeng. Vila	Koš.	Kurl. Rask.	Cent.
No Need	170 58.42	28 48.27	24 58.54	38 60.62	23 65.71	25 55.55	32 65.31
No confidence in center	6 2.06	3 5.17	- -	1 1.59	- -	1 2.22	1 2.04
Not possible	33 11.34	8 13.79	2 4.88	11 17.46	- -	10 22.22	2 4.08
No place in center	33 11.34	12 20.07	6 14.63	6 9.52	3 8.57	3 6.66	3 6.12
No answer	49 16.84	7 12.07	9 21.95	7 11.11	9 25.72	6 13.33	11 22.45
Total	291 281	58 52*	41 41	63 61	35 35	45 43	49 49

*Note to Table 3: Since it was possible to give more than one answer to this question, there are more responses than respondents (difference of 10). The last number in each column indicates the number of respondents belonging to that column.

The most frequently cited answer relating to the center itself is the center's unwillingness to enroll the child. These answers reflect the actual situation which we discovered in our investigation and observation in the centers themselves. The congruence of the data from two sources (parents and centers) would seem to be clear evidence that the centers' greatest problem is lack of capacity.

5. Mixed Age Groups

In the centers we visited there is segregation of the various age groups. Each age group has its own teacher and program, differing from those of other age groups. The organization of space encourages this practice, since there is no possibility of joining spaces together, and the centers have no large areas that could house several groups at one. The teachers believe that separation of age groups is advisable because of the danger of the spread of infection: age segregation facilitates the isolation of the disease.

Various age groups are brought together only for certain celebrations, at which time the children are mere passive observers. When they leave the center and go outside, the children usually go in separate age groups, so that play activities outside are age segregated as well.

The study carried out in Zurich by Professor Meierhof and associates is of interest here. In the center of their day-care center building they established a commons, the largest area in the center, able to hold all the children of the institution. The commons is used by all age groups: around the periphery are smaller areas for each age group. The commons area houses toys, water, and construction materials, which invite the interest of all who want to play there. Before this experiment it was generally believed that older children do not wish to communicate with younger children and that they are inclined to be aggressive toward them. The results of the study, however, demonstrated the advantages of association among children of various ages. The older children soon began to care for the younger ones and to look out for them in play activities.

Spatial organization should stimulate more frequent mixing of age groups. The possibility of joining several areas belonging to separate age groups, or creating a large space that could accommodate several groups simultaneously would permit children to learn how to behave toward those younger or older than themselves, would increase familiarity among the children, and would reduce the number of fights.

The educational program and teaching methods could also be adjusted to encompass various age groups simultaneously. In joint play and association age groups complement one another in various ways, thus making the organization of activities in the center more similar to the atmosphere of the family.

Older children (6 or 7) like to be leaders, to possess and display their "authority," to be able to feel "big" and "important." Younger children seek models for identification, someone to copy. When there is a choice between an adult and a child somewhat older than they are, younger children are more subject to the influence of the child than to that of the adult. They are resistent to adult authority, for adults always attempt to discipline them. For younger children the authority of older children is more acceptable, and is not perceived as compulsion.

6. Parental Cooperation with Centers

In the parents´ questionnaire there were two groups of questions on daycare centers. These questions yielded information on attendance at daycare centers, the reasons for attendance or nonattendance, and an examination of parental attitudes toward the centers.

This portion of the questionnaire was answered by parents whose children were between 3 and 7 years old (a total of 431). Of the total number of children in this age group, there are 281 who do not attend a daycare center and 138 who do. (The responses concerning the reasons for nonattendance at daycare centers are dealt with above.)

The question concerning the shortcomings and advantages of the daycare center was answered by the 138 parents whose children attend a daycare center. The following table presents the attitudes of parents regarding daycare center advantages.

*Table 6 contains more responses than respondents since parents could select more than one reply. The number of respondents is shown in parentheses.

The feature of daycare centers that most pleased parents was the teachers´ relationship with the children (27.97%), immediately followed by the group spirit that the center develops (22.03%). These features are cited in 50% of the responses. Next most frequently cited is the assertion that the centers are well equipped (18.53%), followed by the children´s physical activity, and then the work and discipline learnt in the center (10.14%).

Daycare Table 6

Advantages of Centers	Total	Belgrade		Sarajevo		T.Užice	
		Ban. Brdo	Sum.	Čeng. Vila	Koš.	Kurl. Rask.	Centar
Group spirit	63 (35) 22.03%	8	14	10	16	10	5
Teachers' relationship to children	80 (42) 27.97%	10	18	9	24	11	8
Physical activity	34 (11) 11.88%	3	13	3	9	6	-
Well equipped	53 (18) 18.53%	4	13	4	15	12	5
Good food	10 (3) 3.50%	-	4	2	1	2	1
Work & discipline	29 (12) 10.14%	5	4	1	5	9	5
No advantage	8 (8) 2.80%	2	2	-	1	2	1
No answer	9 (9) 3.15%	-	3	-	1	-	5
Total	286 (138)*	71 (32)	29 (16)	72 (30)	52 (26)	30 (20)	32 (14)

In large numbers the parents cite overenrollment (25.40%) and possibility of infection (18.92%) as shortcomings of the centers. Next in frequency is the response that the center has no shortcomings (11.35%). The column "Unfavorable conditions" contains three subcategories: poor food, neglect of facilities, and poor equipment. Each of these absorbed about a third of the responses in this column (a total of 15.68%). The response, "Factors preventing attendance at center" (8.65%) encompasses high fees, unsuitable hours, and too great distance from home. Each of these received about the same percentage of responses. Least frequently cited was the complaint about unfavorable social relationships in the center. This confirms the findings regarding the advantages of the centers, which reflected approval of social relations.

Daycare Table 7

Shortcomings of Centers	Total	Belgrade		Sarajevo		T.Užice	
		Ban. Brdo	Šum.	Čeng. Vila	Koš.	Kurl. Rask.	Centar
Factors preventing attendance at center	16 (10) 8.65%	5	3	2	1	4	1
Over enrollment	47 (47%) 25.40%	6	6	3	19	6	7
Unfavorable conditions	29 (10) 15.68%	6	4	4	6	6	3
Possibility of infection	35 (19) 18.92%	1	9	4	18	3	-
Unfavorable social influences	13 (7) 7.03%	3	4	2	1	2	1
No shortcomings	21 (21) 11.35%	-	7	2	1	9	2
No answer	24 (24) 12.97%	2	8	1	1	5	7
Total	185 (138)	23 (14)	41 (32)	18 (16)	47 (30)	35 (26)	21 (20)

"When the daycare centers opened up and began operation parents looked on teachers as household assistants. Most guilty in this respect were highly educated parents whose children present the most problems." So went the comment of one teacher in a daycare center in Sarajevo. Now, according to the same source, parents often turn to the staff of the center when some problem arises with their child. Many parents do not know how to behave toward their children, and turn the whole task of training over to the staff of the center, or they seek advice on specific problems.

Once a month the centers hold "open house," inviting all parents who want to come and talk things over with the teachers. About half the parents come on "open house" days. There is also daily contact between teachers and parents when children are brought and picked up, which presents an opportunity for conversation with the teacher.

Parents sometimes advise teachers to punish their children, and even to strike them if necessary. This is how they treat their children at home. In such cases the parents need a bit of education themselves. If teachers do not influence parents to change their practices, a variance between the treatment of children at home and at the daycare center develops, with negative consequences for the child.

As we have already noted, the most cited advantages of the center are the group spirit and socialization process developed in the center and the relationship of teachers with children. This shows that as far as parents are concerned the most important characteristics of centers are social factors rather than the physical facilities.

It is worthy of note that the staffs of the daycare centers in our sample are composed exclusively of women. The teachers told us that this is generally the case, that there are no men working as teachers in any of the centers. This makes the atmosphere in them totally different from the home atmosphere, where both parents are usually present. A child without a man in the family very much needs to have a man at the center to compensate partially for the absence of the second parent.

There is an academy for preschool education in Banja Luka and a teachers´ school in Belgrade. However, as if by some unwritten rule, the only applicants to these schools are women. Men are little attracted to this low-paying profession once they have completed their higher education. But aside from inadequate compensation, perhaps the most important reason for this state of affairs is the deeply rooted prejudice that the education of children is women´s work, whether at home or in a daycare center.

Since the presence of teachers of both sexes would enrich the atmosphere in the center and make it more natural, consideration should be given to broad social encouragement for men to enter this field. ONe significant stimulus would be increasing pay levels to accord with work performed.

7. Toys and Games

The centers purchase sufficient quantities of toys for the children. Children are not permitted to bring playthings from home to the center, for they arouse envy on the one hand and selfishness and pride of possession on the other.

Instead, some centers (particularly in Belgrade) try to interest children in making some of their playthings themselves. This arouses great interest among children. The storeroom shelves in the centers are full of various packaging materials, medicine boxes, cosmetics bottles, spray cans, wooden and cardboard boxes, and the like, which children have brought with them from home. Children take great interest in turning these materials into trains, furniture, trolleys, dolls, cars, etc. Toys a child makes himself belong to him in a way that store-bought things never do. The making of toys is also a kind of play that is highly interesting and creative.

The making of toys, however, has not been extended by any of the centers to the making of larger toys that children could climb into or sit on and which could be made of light boards, heavy-duty cardboard, corrugated paper, or the like.

Perhaps constructing large toys would require more space than the overcrowded centers have available. Furthermore, in engaging in such construction activities children would use hand tools, thus increasing the possibility of injury (from which children tend to be overprotected). In addition, large, slapdash toys would destroy the neatness of the center, something that is greatly insisted upon. When we showed one of the teachers in Sarajevo pictures of several daycare centers we visited in Denmark, she said: "We teach our children tidyness. Everything is all over the place in the picture. Why is everything on the floor? I´d have them put everything up there neatly on the shelves, and then they could get things down when they wanted."

The insistence on neatness is partially justified, since cleanliness and neatness are still not sufficiently developed traits in Yugoslavia. In countries to the north these habits are much more developed, and so it is not so necessary to insist on them. However, carrying tidyness to an extreme can hamper the child´s spontaneity.

In all the five centers we noted the lack of child-proportioned subareas, which children seem to love. Children love to crawl into wardrobes, climb under the table, and play behind a door.

There are, actually, few "play nooks" in the centers, or parts of section rooms equipped with various kinds of play equipment ("kitchen," "store," "hair dressers´"). These play nooks are not spatially isolated or equipped with playthings entirely suited to the particular age group. The "kitchen" equipment is too big or is out of reach. The equipment and nook itself are not complete: for instance, there is no water. So children have to cook a "dry" dinner; their kitchen is an incomplete copy of an adult one.

The play nooks we encountered in the daycare centers have generally been bought ready-made. All that has to be done is to put them in a corner of the room. Teachers might make equally attractive "nooks" out of packaging material: it would have more variety and imagination and could be removed when the children had had enough of that kind of play.

We believe that children should not only have "make-believe" corners but should have the chance to use real kitchens and real workshops. In the daycare centers in Denmark we saw children helping teachers prepare snacks: they played with water, ran around the kitchen tables, around the stove, etc. These were, to be sure, much smaller kitchens than those in our daycare centers and were used primarily to make snacks, and so a much smaller number of people work there. (It might be added that the daycare centers themselves were much smaller, and had a smaller number of children.) Nevertheless, staff showed much less concern that children would hurt themselves in being in such close proximity to stoves and knives. Quite the contrary, it is around such "dangers" that children learn caution and learn to recognize danger when there is no adult present to help him. The child accustoms himself to simple, everyday situations, which he never learns to handle skillfully if there is always someone else available.

This concept is totally opposed to the current view of education in Yugoslavia. The large groups of children in centers is one of the underlying factors and overly detailed programs another. The time spent in daycare centers is planned to the last minute: there is a time for the children to draw, to listen to records or stories, a time to sing, and a time to play. Little time remains for unguided, unplanned activity, for wandering about, etc.

There is generally no water in the playrooms. The literature notes it as one of the most attractive aids of play, comparable only to sand. In daycare centers in Denmark there are spigots in the middle of the dayroom, low enough for the children to turn them on and off at will. They become the center of activity in the room.

Daycare teachers attempt to develop children's interests in as broad a range of fields and activities as possible. Almost all the centers have a record player and a record collection. The Banovo Brdo center even has a slide projector, movie projector, and a tape recorder. The record player (and other equipment) is run by the teachers, "otherwise the children would quickly break it." This would certainly be the case with the younger children, but the older children (from six to seven and up) could easily be taught to handle such equipment. Many children, particularly from blue-collar homes, do not have a chance to use these devices at home, making it all the more important for them to have the experience at the daycare center.

8. Outdoor Play

Aside from one relatively well-favored center (the Čengić Vila center with 25 m^2 of open space per child), all the centers have a mere 5.5 m^2 of open space per child. The Codes for Planning, Constructing, and Equipping Preschool Institutions call for 30 m^2 of open space per child, or 20 m^2 if the yard of the center is in the vicinity of public open space or parks. In older parts of town the rule is at least 10 m^2 of open space for outdoor play.

Table 8 presents the sizes of the open spaces at the five centers.

Daycare Table 8

	Belgrade		Sarajevo –		Titovo
	Banovo Brdo	Šumice	Čengić Vila	Koševo	Užice
Number of children	203	208	160	120	150
Total open space area	1,972	1,149	4,000	690	753
Mean area per child	6.27	5.51	25	5.75	5.10
Code provision m^2 per child	20-30	20-30	20-30	20-30	20-30

The number and type of activities engaged in in open spaces largely depend on the landscaping and equipping of the grounds. The equipment on all the open spaces studied was standard equipment: conventional playground fixtures that are not suited to the age of the children in the center.

All the teachers we interviewed were unsatisfied with the fixtures and in their words would gladly get rid of the equipment since it hinders the free movement of children in the outdoor space and was not much used. We are not in favor of the complete removal of the fixtures, but they should not be considered the only possible playground equipment.

There are no trees, stumps, bushes, etc. surrounding the play equipment. The open terrain is generally flat. In all the centers we visited the ground has been levelled, even where there were natural slopes. The spaces were monotonous and ill-adapted to children's play activities.

It is not difficult to bulldoze a few ripples in the terrain to create a diversified effect, giving various spots in the play area distinctive and easily identifiable traits (the biggest mound, the slope over on the left, the little valley, the garden, the bottom of the mound, etc.). The configuration of the landscape suggests conceptual subdivisions. It becomes pleasant to spend time on such a landscape, with its manifold play possibilities.

Several teachers told us that city children do not recognize either wild or domesticated animals. It would probably be possible to keep a few animals in the center. This would permit children to experience things denied them by city life, to come to love animals, and to learn that like everything else they require care and attention, and are able to show appreciation for attention.

Children would find much greater use for rolling ground covered with greenery and other natural materials, with water and a space to build fires, than from mass-produced play equipment.

The teachers complained that there were "uninvited guests" in the centers' open spaces. Children from the neighborhood, including those who previously attended the center, come onto the grounds as soon as they finish school. Children do this because there is insufficient landscaped open space in the neighborhood and not enough playgrounds. These children break the equipment, ruin the shrubbery, trample the grass and flowers, and make noise that interferes with the center program, including afternoon nap time.

The teachers try to keep the neighborhood children out, yelling at them and driving them out of the center yard. But in so doing they merely protect the interests of their "current" children from their "former" children: the kids who formerly attended the center now have nowhere to play after school.

Easy access to the outdoors is very important. Most city children live in multistory buildings -- generally on one of the upper floors, and rarely on the ground floor. But a ground-floor location has several advantages for young children: it affords the opportunity to get outside quickly, and to return inside again without much effort. This permits more frequent trips outside, to a broader, more diversified, and more interesting space. Outdoors the child can play in larger groups: play activities are more varied, and sun, fresh air, and greenery afford the child a completely different and more suitable environment than the apartment, where children are separated from the ground.

If at home children are unable to experience the advantages of quick and frequent transitions from indoors to outdoors and back again, this is one more reason why the child should enjoy the advantages of ground-floor living in the daycare center (which is generally surrounded by a safe open space).

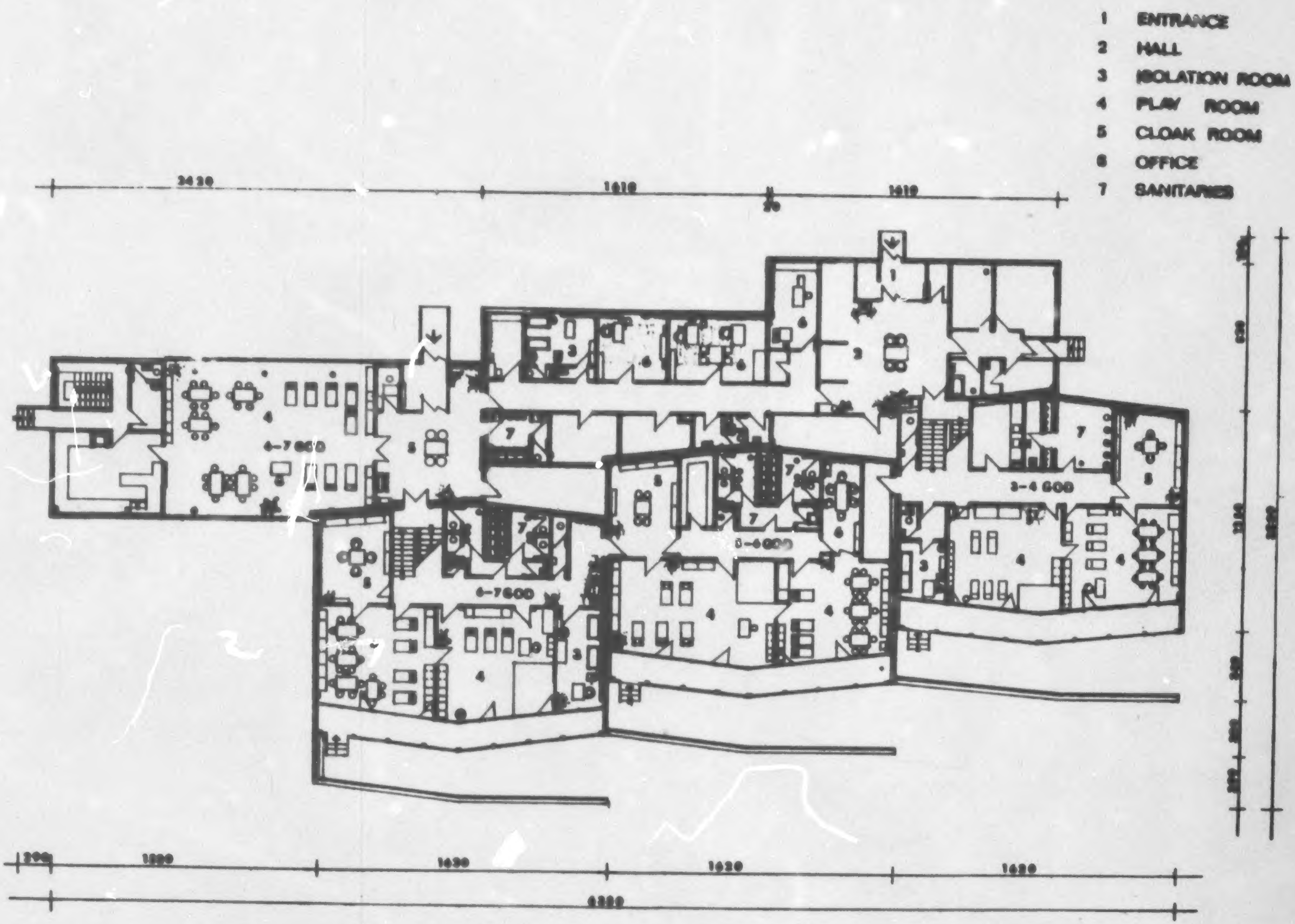
However, either the design of these buildings, or daycare center 'house rules' have brought about a situation in which the direct indoor-outdoor traffic is in effect eliminated. The reason for this, teachers assert, is that in winter and on rainy days children track in a good deal of mud, and so it is better to route children through the cloakroom and the hallway rather than directly from the section rooms outdoors and from the yard directly back inside. There is the additional concern that if children do not dress warmly enough on cold days they will catch cold by running in and out at will. Whatever the validity of this argument in winter, it certainly cannot be justified in summer, nor on nice spring and fall days. Overconcern for children ends in hampering them rather than protecting them.

In all cases the open spaces are maintained by the centers themselves. There is no cooperation with the city parks department so the entire task of landscaping and maintenance falls on the staff of the centers.

The maintenance of open spaces offers children an opportunity to lend a hand. Children would find such work enjoyable. The advantages would be twofold: the grounds would receive attention and children would develop a love for things that grow. Probably older children ruin plantings in the center yard because they themselves have never planted anything, and trample on the grass because they have never cared for it or grown plants. Daycare centers are a place where such habits can be developed from infancy. The centers do not make use of the possibilities of their yards, where beds could be laid out for children to grow vegetables and flowers, where they could watch the growth of the tree they have planted themselves, and see their own name printed on a marker.

Children spend a part of each day (about 2 hours) outside the center. Teachers take them on walks: children soon learn to recognize the buildings, supermarkets, streetcorners. Soon the possibility of their getting lost in their own neighborhood disappears, with the knowledge gained during group outings.

PART SIX: GRAPHS


1 ENTRANCE
2 HALL
3 ISOLATION ROOM
4 PLAY ROOM
5 CLOAK ROOM
6 OFFICE
7 SANITARIES
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3-4 GOD
6-7 GOD
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1620
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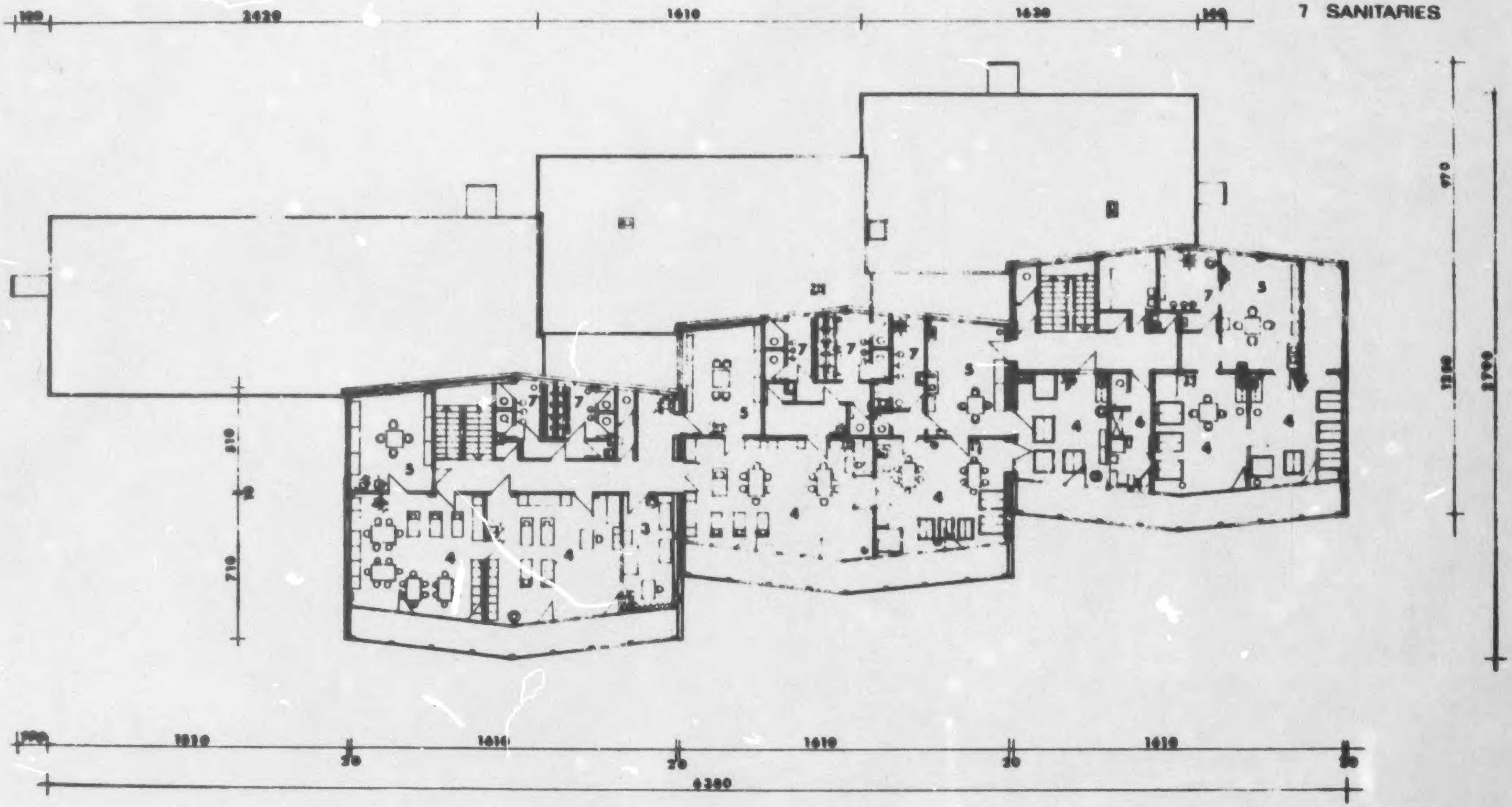
daycare center
sumice . beograd

ground-floor layout

1 ENTRANCE
2 HALL
3 ISOLATION ROOM
4 PLAY ROOM
5 CLOAK ROOM
6 OFFICE
7 SANITARIES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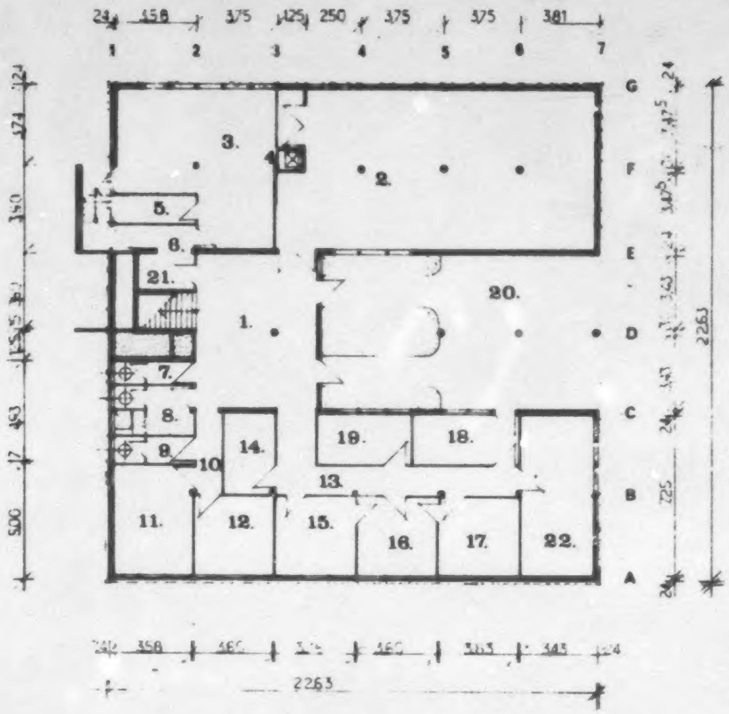
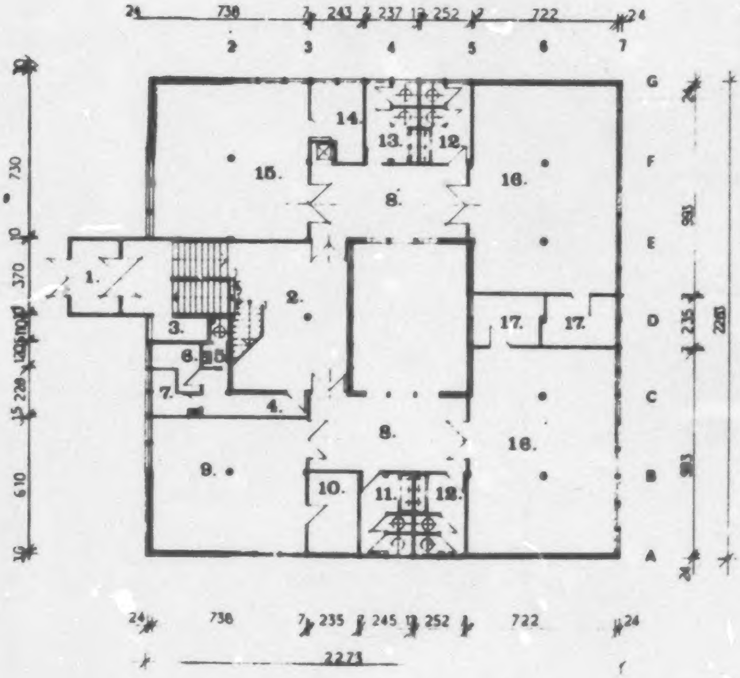
daycare center
sumice . beograd

second floor
layout



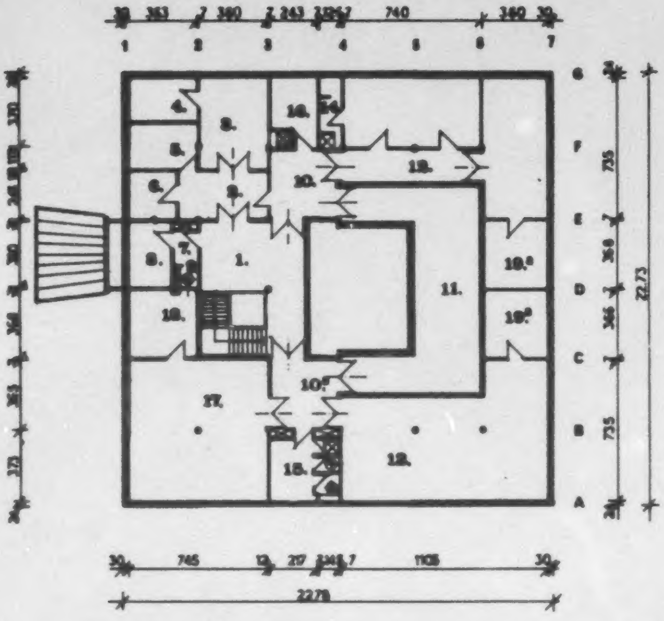
1. HALL
2. DINING ROOM
3. KITCHEN
4. ELEVATOR
5. STORAGE ROOM
6. PASSAGEWAY
7. SANITARY FACILITIES
8. CLOAK ROOM
9. SANITARY F.
10. CORRIDOR
11. OFFICE
12. OFFICE
13. CORRIDOR
14. STORAGE
15. LAUNDROMAT
16. DRYING ROOM
17. IRONING ROOM
19. STORAGE
20. PORCHE
21. CLOAK ROOM
22. STORAGE ROOM

daycare center
banovo brdo. beograd lower floor layout



1 VESTIBLE
2 ENTRANCE HALL
3 STORRAGE
4 HAAL
5 WC
6 ISOLATATION ROOM
7 DOCTOR'S ROOM
8 RECEPTION ROOM
9 PLAY ROOM
10 NURSE
11 SANITARY FACILITIES
12 - " -
13 - " -
14 NURSE
15 PLAY ROOM
16 - " -
17 TOYS

daycare center
banovo brdo. beograd ground-floor layout



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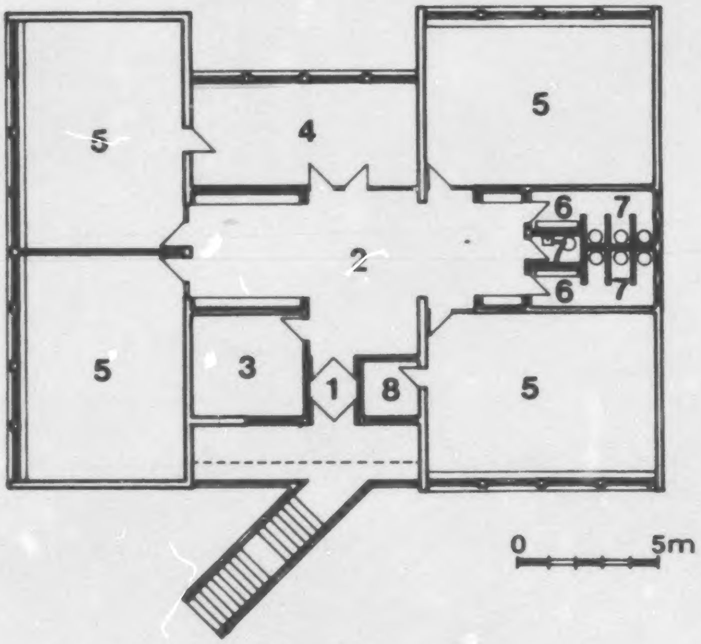
1	ENTRANCE HALL
2	PASSAGEWAY
3	KITCHENETTE
4	STORAGE
5	CLEAN LINEN
6	DIRTHY LINEN
7	PASSAGEWAY
8	ISOLATION ROOM
9	WC
10	HALL
11	TERRACE
12	PLAY ROOM(babies 3-12mothe)
13	PLAY ROOM(children I-3)
14	SANITARY FACILITIES
15	SANITARY F
16	NURSE S ROOM
17	PLAY ROOM
18	RESERVED SPACE
19	TOYS
19a	TOYS

daycare center
banovo brdo. beograd second floor layout



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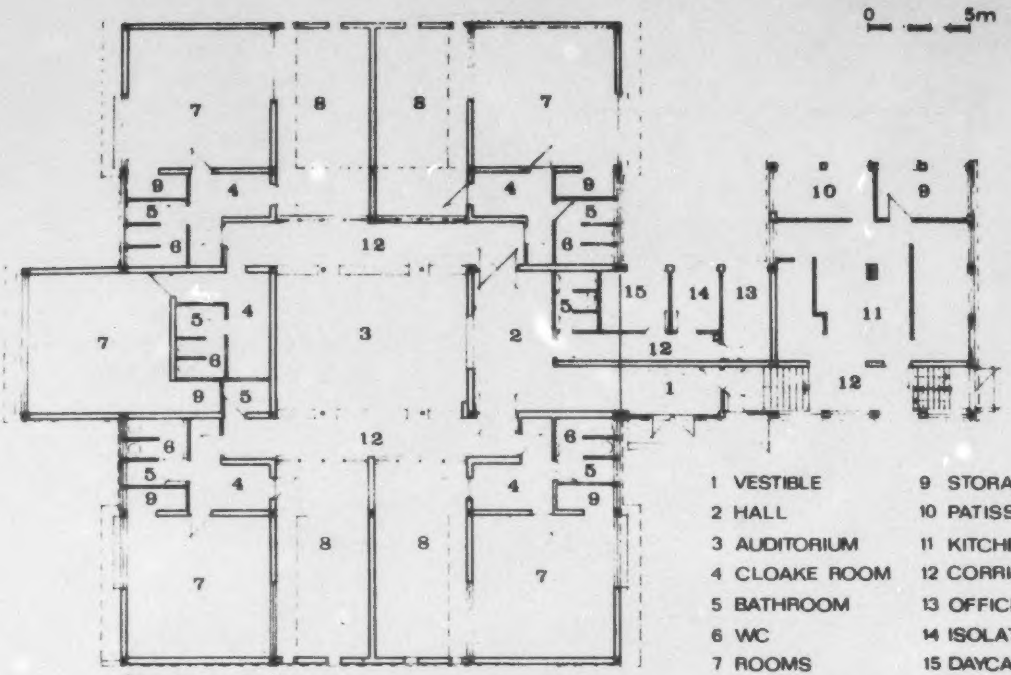
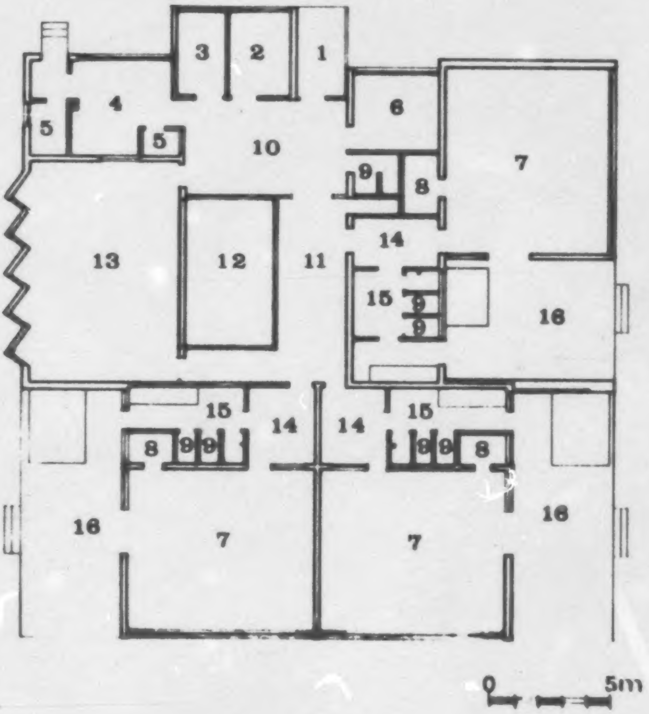
1	VESTIBLE
2	HALL
3	OFFICE
4	DINING ROOM
5	ROOM
6	BATHROOM
7	WC
8	BATHROOM

daycare center
titovo uzice ground-floor layout



1	VESTIBLE
2	HALL
3	AUDITORIUM
4	CLOAKE ROOM
5	BATHROOM
6	WC
7	ROOMS
8	HOUSE YARD
9	STORAGE
10	PATISSERIE
11	KITCHEN
12	CORRIDOR
13	OFFICE
14	ISOLATION
15	DAYCARE STAFF

daycare center
cengic vila . sarajevo   ground-floor layout



1	ENTRANCE PORCHE
2	OFFICE
3	ISOLATION ROOM
4	KITCHEN
5	STORAGE
6	DAYCARE STAFF ROOM
7	PLAY ROOM
8	LAUNDROMAT
9	WC
10	HALL
11	CORRIDOR
12	ATRIUM
13	AUDITORIUM
14	CLOAKE ROOM
15	LOUNDROMATE
16	ROOFED TERRACE

daycare center
kosevo . sarajevo   ground-floor layout

PART SEVEN: PARENT-CHILD RELATIONS

1. Toleration and Fears

The investigators were constantly aware that the utilization of space (inside the apartment or not) depends not only on the existence of the space and its size, but also on the relations between the people using that space.

One of the aspects of such relations is the diversity or incompatibility of the interests of parents and children, a subject dealt with in part in the section on the apartment.

Another aspect is the presence of parental toleration, which is in turn, conditioned by parental fears.

Bearing in mind the sensitivity of this subject and the fact that the nature of this study did not encourage researching this area in depth, we have tried to depict a simplified picture, relying on two sources: the responses of parents and the statements of the children.

For the purposes of this study we divided this subject into four sections: parental fears and the apartment, fears and the building, fears and open spaces, fears and the broader urban encironment.

1.1. Fears and the Apartment

A major source of fear is in the physical separation of parents and children. Separation prevents supervision and running to the child's assistance.

Within the apartment separation is usually related to parents' trips outside the home, leaving the child at home alone.

There are a variety of occasions for separation:

- going to work (as we have already noted, in most homes in our sample both parents are employed), shopping and other parts of daily routine
- parental entertainment, going out in free time at night presents a particular problem with regard to baby sitting.

We will start our analysis of this problem with commentary on the responses of children. We investigated the problem of staying home alone only in the case of younger school-age children, since parents informed us that preschoolers (whom we could not in any case interview directly) are rarely left home alone. On the other hand, we assumed that a child over 11 years old must remain home alone from time to time, as a part of training for maturity.

In response to the question of whether they often stay home alone, more than half of the younger school-age children (from 7 to 11) answered that they do so often (Table 1). Although the expression ´often´ is somewhat ambiguous when used by a child, this corresponds closely to the data on parental employment, for something more than one half of the mothers in the sample are employed.

We established earlier that the number of families with two working parents is somewhat higher in the lower-standard complexes. This fact is not as evident in the data of Table 1, since there is a rather large number of children from Banovo Brdo who claim that they do not stay home alone. (This of course does not exclude the possibility that they stay with someone else -- grandmother, grandfather, household help, neighbors, relatives.) Nevertheless the difference between the number of those who do not stay home alone and those who do is greatest in Kurlagino Raskršće and Čengić Vila II.

In order to study this phenomenon a bit deeper, we broke down our sample of younger school-goers into one-year age groups (Table 2). The breakdown fails to reveal any definite pattern: there is no confirmation that as age increases the child is more apt to stay home alone. This confirms the assumption that the frequency with which children are left home alone is not the consequence of reasoned decision by parents but of external necessity.

More than one half of the children we studied do not like being home alone. The resistance of children to being alone does not seem any stronger in any of the residential complexes, but the percentage of negative attitudes expressed was highest in Čengić Vila II and lowest in K rlagino Raskršće. Thus, although Kurlagino Raskršće has the highest number of children who state that they often stay home alone, one cannot say that they view it as a particular problem.

The information obtained from parents about the same problem (Table 3) reveals that nearly one third of the parents never leave their children alone in the apartment. The largest number of parents who are obliged to do so live in the lower-standard Sarajevo complex, Čengić Vila II. At the same time, the two Sarajevo developments have the smallest number of parents who leave their children home alone without taking any safety precautions. Judging solely on the basis of Table 3, one would conclude that parents' fears about children being home alone are most evident in Sarajevo.

According to the age of the children, parental responses to this question reveal some interesting facts (Table 4). First, as is to be expected, the largest number of children who never stay home alone are the preschoolers (3 to 7).

The number of children who are never left alone decreases with increasing age, but not linearly -- more are left alone in the 7 - 11 age group than in the 11 - 14 group. A possible explanation is that young parents, still not settled in their occupations, find it difficult to engage babysitters. If this is so, then the situation changes over time, as parents advance in their careers.

An amazing fact is that the largest number of parents leaving their children alone but taking some precautions are parents of older children (11 to 14) and this applies to two thirds of the total number in that age group. The number of adolescents who are left home without being a cause of concern to parents amounts to barely more than one fifth.

The parents of both school-attending groups are much more cautious than the parents of children under 7 who are obliged to leave their children home alone. This fact leads one to the conclusion that parental trust declines with the children´s increasing age (or with their own increasing age). Put another way, perhaps older children do not seem more mature to their parents.

There is a divergence between the responses of children and the responses of parents (cf. Tables 2 and 4). Young school-attenders (7 to 11) report in 44.3% of all cases that they do not stay home alone, while the number of parents of children of this age level report this in no more than 19.5% of all cases. In other words, according to parents half as many children do not stay home alone as is maintained by the children themselves.

1.2. Safety Precautions

Parents usually take some precautions to alleviate their anxiety about leaving the child alone at home.

Safety precautions may be categorized as:

-- guarding against falls through the window or over the loggia railing,

-- guarding against the child's injuring himself through mishandling objects and fixtures in the apartment,

-- guarding against the entry of undesired visitors.

According to the number of responses (Table 5), it would seem that parents are most concerned about the entry of unwanted visitors. Nearly one fifth of all parents require their child to lock up when there is no one else at home. The largest number of parents who take this precaution live in Koševo (the upper-standard Sarajevo complex). It seems to us that this might be explained by the building type, for the Koševo buildings are low-rise, and similar to single-family dwellings The apartments are easily approachable and afford easy entry.

There are some parents who lock the door upon leaving, a procedure which leaves something to be desired, for a child who has been locked in is not in control of the situation. The parents who are most apt to do this are those in the lower-standard Sarajevo complex (Čengić Vila II).[1] Although we did not check this phenomenon by cross tabulating it with the age of the child, one might conclude that there is the least amount of trust between parents and children in this complex. Another possibility is that parents leave for work particularly early, before the children wake up (although this is less likely, given the children´s responses). (See the section on children outside the home.) Nieghbors are of little help in watching children. Čengić Vila II is the only residential complex in which neighbors show any amount of willingness to be on hand when parents need them.

The second commonest fear -- although it is much less prevalent than the previous cause of fear -- is concern about the child falling through a window or over the balcony railing. (Perhaps the reason for the relative infrequency of this fear is the fact that the apartments in our sample are largely on the lower floors and that only a few of them have a loggia or balcony.) This matter has been discussed at length in the section on the apartment balcony/loggia.

The least frequently encountered was concern about the child injuring himself by improperly handling objects and fixtures. One might conclude from this that parents are convinced of the safety of apartment furnishings. This is quite understandable -- the apartment is a complete and clearly defined unit. It is subject to relatively minor changes in equipment and in its residents, thus explaining the feelings of security, stability, familiarity, and protectedness that it affords the residents. There are relatively few injuries in the apartment as compared to the surroundings of the building.

Just a bit more than one twentieth of the total number of parents fail to take some precautionary measures when they leave their child alone during the day.

We wished to check out whether parents are preoccupied with concern about the child if they have had to leave him home alone during the day. One indicator is the number of parents who check up on the child by telephone during the day (Table 6).

About two thirds of the parents who leave the child home alone and also have a telephone use the telephone to check up on the child. There does not seem to be any particular correlation between the telephone checks and the children's ages. The highest incidence of telephone checks was reported for young school attenders aged 7 to 11 (Table 8).

After investigating parental concern about leaving children home alone during the day during working hours, we investigated parental outings in the evening on the assumption that this was more difficult both for parents and for children. We assumed that children's fears were greater at these hours and that there were fewer possibilities of neighbors taking care of children in the evening. One third of all parents leave the child (or children) alone when they go out in the evening (Table 9).

The highest percentage of parents leaving the child (children) home alone at night was recorded in the lower-standard Sarajevo complex.[2] The most frequent response in all residential complexes is that parents entrust the child to some sort of babysitter when they go out. More then two fifths of the parents do this.

Less than one tenth of all parents take the child with them when they go out in the evening. The smallest number of parents doing so was encountered in Koševo (the upper-standard Sarajevo complex), and the largest number of parents doing so was encountered in the lower-standard Belgrade complex.

There are some parents who do not go out in the evening, although the number here is not large.

The highest number of parents who do not go out in the evening was encountered in the Belgrade upper-standard complex. If one compares this figure with the high percentage of children who are left home alone in the evening in the Sarajevo lower-standard complex one comes to the conclusion that the insufficiency of the family´s immediate environment and the samll size and lack of facilities of the apartment compel the residents to spend time coutside.

There seems to be no connection withleaving children home alone in the evening and the floor on which the apartment is located (Table 10). Relatively speaking, the highest percentage of parents leaving children home alone in the evening live in apartments located on the first to fourth floors, and the smallest percentage live in apartments on the upper floors (above the eighth story). Relatively, the largest nubmer of parents taking the child with them when they go out in the evening are ground-floor residents, while the highest percentage of residents not going out in the evening live on the upper floors.

As might be expected, the number of children who are left home alone increases with increasing age. Although the controlling factor here may very well be increasing maturity and growing independence (Table 11), the number of children who go out with parents in the evening does not increase .

linearly with increasing age. There are a number of possible reasons for this. The data of the study provide some basis for the assumption that in adolescence the child becomes more remote from the parents as a way of proving his independence both to himself and to others. If this is correct, then a child of 11 to 14 years of age prefers people and places other than those which parents would select for themselves and for him.

1.3. Fears and the Neighborhood

In this section we will discuss the relative independence of school-attenders in traveling about the neighborhood.

Most of the parents of older school-attenders (7 to 11) report that they do not take their child to school nor wait for them afterward (three quarters of the total number).

Nevertheless, a quarter of the total number of parents meet the child in front of the school every day or from time to time. The smallest number of parents who do this live in Čengić Vila II, perhaps because the dangers of the child losing his way or getting hurt are minimal.

The largest group of parents who meet their child at school live in Banovo Brdo (the lower-standard Belgrade complex).

It is possible that they do this because of the possibility of traffic mishaps.

The responses of younger school-attenders differed from those of their parents (Table 12). Children report with greater frequency than their parents that the parents meet them at school. The response ´sometimes´ is very frequent (nearly half the sample).

According to the reports of children, children are most frequently met in the Užice residential complexes. But the other complexes in our sample are not far behind. In four of the six complexes, more than half of the children are met, while the other two (Čengić Vila and Šumice) are the places with the safest routes between home and school.

Be this as it may, children seem to indicate that parents watch over them much more than they wish to acknowledge to us and perhaps to themselves.

Because of the expected divergence in responses, we attempted to test the attitude of children about being met.[3]

A large number of younger school-goers believe it is not necessary for parents to meet children at school (Table 13), while some of those beyond the first grade believe that this depends on age.

The largest number of children who believe that they should not be met live in the residential complex where parents most frequently meet their children -- Banovo Brdo. The smallest number (half as many as in Banovo Brdo) live in the Užice upper-standard district -- Centar.

It is not difficult to determine from neighborhood plans that the Šumice and Koševo schools are more favorably located from a safety standpoint than those in Banovo Brdo. However, we wanted to determine possible exaggeration in the fears of parents and children. Thus when we excluded children of 7 and 8 for whom safety precautions are normal, there remained a relatively large number of older children (10 and 11) who are met and a relatively large number of these older children report that being met is necessary. Our expectation that a major proportion of the children who are met would be those who are not left home alone was not fulvillede (Table 14).

1.4. Children Outside the Home

We began our investigation of parent-child routings with two questions for parents: (1) where, and (2) how they spend their free time.

Nearly three quarters of the parents stay home in their free time (Table 15).

The data in the table are quite uniform from complex to complex. Nevertheless, the largest number of those who stay home was noted in the Sarajevo lower-standard complex, and the smallest number in the lower-standard Užice complex. Thus there seems to be a weak correlation between apartment comfort and frequency of outings outside the apartment. There is an equal number of those who spend their free time at an additional job and those who spend free time in leisure activities (Table 16). The residential complexes are generally uniform in this regard.

Banovo Brdo leads in the percentage of those whose free time is given over to leisure activities. Perhaps this is a result of the location of this complex close to Belgrade's largest recreational park -- Košutnjak Woods.

Despite the fact that nearly a half of the total number of respondents spend their free time doing additional (paid) work, more than four fifths report that they spend more time with their children than do relatives, household assistants, or neighbors (Table 17).[4]

One tenth of the parents acknowledge that grandmothers and grandfathers spend more time with the child than they themselves do. There was not a single case in which parents thought that daycare center teachers could be said to spend the greatest amount of time with their child.

It is interesting that the largest number of parents reporting that they spend the most time with their child come from families in which both the father and the mother work (Table 18). This might be explained by the increased desire to spend time with the child, brought about by forced separation from the child in the morning, during working hours.[5] At the same time, it is precisely in these families with two working parents that the grandmother and grandfather participate most, probably by taking care of children during the parents' working hours.

Although half of the respondents spend their free time earning money by supplemental work, only an insignificant percentage of them do not leave the neighborhood for the weekend.[6]

Over nine tenths (in effect all) of the parents take the children with them when they go somewhere for a weekend (Table 19).

The total number of those who leave the children at home (in the neighborhood) when they go on a weekend trip is relatively small. The largest number of such parents live in Čengić Vila II. However, the number is too insignificant to provide the basis for any conclusions.

The largest number of children who do not go on weekend trips with the parents are the oldest children in our sample. Next in frequency is the preschool category. There are only three children between 7 and 11 who do not go on weekend trips with parents.

Nearly four fifths of all the children like their parents to take them places when possible (Table 20). This at least is the impression that parents have, and to approximately the same degree in all the residential complexes.

The number of parents who do not believe that their children like to go out with them is always a bit larger in the higher than in the lower-standard residential complexes. (This number is twice as large in Koševo, the complex with the most parents who take on extra work in their free fime, as in Čengić Vila.)

Most parents (nearly two thirds) believe themselves to be in a position to fulfill the desires of their children in this respect (Table 21).

The largest group (nearly one quarter) of parents who state that they are unable to take the child where he would like to go live in Šumice.

In order to check this, we cross tabulated the possibility of fulfilling the child´s desire to go with his parents and total employment (Table 22). In families in which the father alone is employed a somewhat smaller percentage are able to fulfill the desires of children than in families with only the mother employed or both parents employed.

The second test cross-tabulation (Table 23) resulted in completely predictable findings: parents who spend their free time doing additonal work are less able to accommodate the wishes of their children.

Where does the child want his parents to take him?

According to Table 24, the favorite place is the park, followed by the zoo, and then children´s movies.

It is worthy of note that these three favorite places are typically located outside the neighborhood and cannot be expected to be included among typical neighborhood facilities.

Banovo Brdo has the largest group of children who want parents to take them to the park (more than one quarter of the total number of answers in this category). These children are used to playing in the wooded park of this residential complex.

The zoo is the favorite for children in both Sarajevo complexes, and the children in Koševo are the most keen on children´s films.

We note that walks are next to last in popularity, just ahead of visits to the sweet shop. This will be discussed later with the children´s responses by age groups (Table 25). Preschoolers are the ones who most want to go to the park and the zoo while the intermediate gage group (7-11) is most interested in the movies.

We wanted to know whether children could go alone to their favorite spot if their parents could not or would not take them there. Regardless of whether this is justified by the child´s age or by the distance to the place the child wants to visit, parents deny permission twice as often as they permit children to go (Table 26). The highest percentage of acquiescent parents is from Koševo, but in this residential complex the number of those who acquiesce and those who forbid outings alone is just the same.

The highest figure for nonacquiescent parents was in Kurlagino Raskršće - Čengić Vila, immediately followed by Šumice.

Acquiescence increases with the age of the child. Even in the lower age group (3 to 7) one tenth of the children are permitted by their parents to go on their own to various places in the neighborhood.

Surprised by the fact that nearly one third of the older school-attenders (from 11 to 14) are forbidden by their parents to visit various places outside the neighborhood, we attempted to do some checking.

Independent trips outside the neighborhood can be expected only when children begin attending school. Thus we narrowed the sample to these children and their parents.

The largest group of parents who forbid their children to leave the neighborhood alone was encountered in Koševo (where we encountered a high percentage of children who are locked in the apartment when the parents leave for work). The second highest number of bans on trips outside the neighborhood was found in the Sarajevo complex of Čengić Vila (Table 27).

Children give somewhat different information about the permissiveness of their parents. Nearly two fifths of the oldest boys and girls respond unambiguously that their parents let them go a good distance away from home (Table 28). It is evident that the number of parents who represent themselves as ´acquiescent´ is one-and-a-half times as large (39.5%:

80.2%). The difference may arise because the children's table includes the response, 'permit from time to time.'

Be that as it may, it is obvious that the number of children reporting that their parents do not permit them to go far is relatively low, but the number of children who abstained from answering was nearly as high.

It is interesting that in Koševo, Kurlagino Raskršće, and Centar, there is not a single child who believes that his parents forbid him to leave the neighborhood. (The reason for this is certainly the location of these complexes in their respective towns.) However, children do not often leave the neighborhood alone, although they report that their parents permit them to do so.

After investigating the permissiveness of parents, we attempted to determine the frequency with which children leave the neighborhood with their parents. Negative responses predominated -- most adolescent children leave the neighborhood with their parents.

In percentage terms, the residential complex where children least frequently leave the neighborhood with parents is Sarajevo's Koševo (Table 29), a fact which is acknowledged by the parents themselves. Koševo is followed in this respect by Belgrade's Šumice, and then the Centar district in

Titovo Užice.

The places that parents take their children differ from the places that children -- again according to parental statements -- would like to go to (Table 30).

The oldest age group most frequently beg their parents to take them to children's movies, but parents take them -- according to Table 30 -- most often on excursions, although according to the parents nature trips do not particularly attract children. (The low degree of interest in nature outings surprised even the investigators.)

The second most frequent place for outings with parents is the homes of relatives and friends. Here again one recognizes the preference of parents, a preference whose imposition must arouse the resistance of the child.

Sensing that there is a certain lack of correspondence in the views and values of children and parents in a period in which children are so sensitive, we asked children whether they preferred parents or friends as companions (Table 31).

Preferences were heavily weighted in favor of friends. (Nearly three quarters of the children would prefer to make their outings with them.) This is a period when children begin to identify with their age mates and cease being dependent on their parents.

Something more than one tenth of the oldest children are equally inclined to go out with parents and with their friends. One wonders whether this represents sincerity or tact. This is difficult to say, but this figure was highest in Šumice, where it represented a quarter of all the children from 11 to 14.

Most children who do not like to go out with parents state their preferences in no uncertain terms. We have selected several particularly typical responses from the children's questionnaires.

> "I just don't like going, but they force me to go. It's terribly boring. They take me on excursions and visits to relatives. On excursions I look at the scenery and yawn." (Girl, sixth grade, Sarajevo)
>
> "Since we have a cottage on Kosmaj Mountain, I go with Mom and Dad every week. I don't like to go with them, but their word is law for me. Sometimes I pretend I have a headache so I can stay and play with my friends, or go to the movies to see a Western or a love story." (Girl, sixth grade, Belgrade)

The children's responses testify not only to the interests of the children, but even more to parental attitudes toward children. Parents require 'civil behavior' and seriousness. In speaking about what they like in their friends, it seems that children are really talking about what it is their parents lack.

> "...but I still like it more with my friends. It's more fun. There's fun and laughing. Whenev er I go out with my friends something funny happens, something strange." (Girl, fifth grade, Titovo Užice)

> "I'd rather go out with my friends because I and my friends joke around." (Boy, fifth grade, Titovo Užice)

It would be hard to find a more sincere expression of the resistance encountered in adolescence than the response of this girl.

> "I don't go with my parents often, sometimes to the pictures. I'd like sometime to go really far away from them. What I like best of all is to go on excursions with my friends, but there's no chance, sad to say. These parents just don't understand us kids. I yearn for adventures. They just don't seem to understand that we're bored and that it's terrible to be with them." (Girl, seventh grade, Sarajevo)

> "I have to go where Mom and Dad take me. They always take me to a nice place. I just don't like it." (Girl, fifth grade, Titovo Užice)

Children who prefer to go out with their parents cite security and protection as the most frequent reason for that, and those who are more inclined toward their age mates without exception say that their friends are more interesting.

The results of questioning parents about the area in which they would like to hear lectures relating to the upbringing of children may serve as a source of information about parental concern.

By far the most interesting topic for parents would be 'Behavior Disturbances in Preschoolers and Schoolchildren.' All other topics, which treat various aspects of physical health, do not seem to preoccupy many parents.

The interest of parents in this topic may be seen as an attempt to break out of the vicious circle of interpreting new and unexplainable behavior by their child as an expression of aggressivity toward parents. Parents are adult, rational beings, who are still emotionally involved with their children and are upset by resistance, whether this arouses anger or pangs of conscience due to the failure to live up to their image of parental responsibilities.

Whatever the reasons, this phenomenon is equally present in all three cities.

We hasten to emphasize that in studying health indices we encountered only a very small number of behavior disturbances which could be considered permanent health defects. Thus we are confronted with conflicts that are the inevitable effects of growing up and whose resolution requires not only knowledge but skill.

It would be a mistake to take the amount of resistance on the part of children as the basis for concluding that when they are not with parents children go with their friends to terrifically interesting places. Children, according to their own report, usually go to the movies with their friends (Table 32), the most popular place of entertainment.

But children do not go to the movies every day. There are no places in the city which are attractive enough to draw children of this age level every day.

Although the park is a favorite of children 3 to 7, it ceases to interest the older age group. (Only one tenth of all older school-attenders go to the park.) All the points of interest cited here were cited by the children themselves -- they were not presented to the children in the form of ready-made answers. Nevertheless, none of the answers represents any thing extraordinary, surprising, or unpredictable. The only point in the table that arouses suspicion on the part of the investigators is the figure of 100 abstentions (more than one quarter of the total sample of children between 11 and 14). Could it be that there are some ′secret places′ that no adults are supposed to know about?

PART SEVEN: TABLES

Parents-children. Table 1

Do you stay often alone at home		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koš.	Kurlag. raskr.	Centa
No	F	175	34	28	21	32	24	36
	V	44.3	51.5	45.9	40.4	43.8	35.8	47.4
	H		19.4	16.0	12.0	18.3	13.7	20.6
Yes	F	203	29	31	30	38	39	36
	V	51.4	43.9	50.8	57.7	52.1	58.2	47.4
	H		14.3	15.3	14.8	18.7	19.2	17.7
No reply	F	17	3	2	1	3	4	4
	V	4.3	4.5	3.3	1.9	4.1	6.0	5.3
	H		17.6	11.8	5.9	17.6	23.5	23.5
Total	F	395	66	61	52	73	67	76
	V	100.0	16.7	15.4	13.2	18.5	17.0	19.2

Parents - children. Table 2

Do you often stay alone		Total	Grade in school				
			1	2	3	4	5
No	F	175	41	44	44	41	5
	V	44.3	51.9	42.7	40.7	43.6	50.0
	H		23.4	25.1	25.1	23.4	2.9
Yes	F	203	32	54	61	51	5
	V	51.4	40.5	52.4	56.5	54.3	40.0
	H		15.8	26.6	30.0	25.1	2.0
No reply	F	17	6	5	3	2	1
	V	4.3	7.6	4.9	2.8	2.1	10.0
	H		35.3	29.4	17.6	11.8	5.9
Total	F	395*	79	103	108	94	11
	H	100.0	20.0	26.1	27.3	23.8	2.5

*/ 395 - number of children age 7-11

Parents-children. Table 8

Do you like to be alone		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurlag. raskr.	Cent.
No	F	208	35	35	29	30	30	49
	V	52.7	53.0	57. 4	55.8	41.1	44.8	64.5
	H		16.8	16.8	13.9	14.4	14.4	23.6
Yes	F	168	30	25	22	34	34	23
	V	42.5	45.5	41.0	42.3	46.6	50.7	30.3
	H		17.9	14.9	13.1	20.2	20.2	13.7
No reply	F	19	1	1	1	9	3	4
	V	4.8	1.5	1.6	1.9	12.3	4.5	5.3
	H		5.3	5.3	5.3	47.4	15.8	21.1
Total	F	395	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

Parents-children. Table 3

Proofchecking before leaving the apartment		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koševo	Kurlag. raskr.	Centar
I do not leave children alone	F	380	73	69	40	65	70	63
	V	31.6	36.1	34.8	20.0	31.7	35.2	32.0
	H		19.2	18.2	10.5	17.1	18.4	16.6
I do proofchecking	F	635	103	94	134	125	88	91
	V	52.9	51.0	47.5	67.0	61.0	44.2	46.2
	H		16.2	14.8	21.1	19.7	13.9	14.3
I do not do any proofchecking	F	127	21	32	8	1	40	25
	V	10.6	10.4	16.2	4.0	0.5	20.1	12.7
	H		16.5	25.2	6.3	0.8	31.5	19.7
No reply	F	59	5	3	18	14	1	18
	V	4.9	2.5	1.5	9.0	6.8	0.5	9.1
	H		8.5	5.1	30.5	23.7	1.7	30.5
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

Parents - children. Table 4

Proofchecking		Total	Age		
			3 - 7	7 - 11	11 - 14
I do not leave children alone	F	380	278	80	22
	V	31.6	64.5	19.5	6.1
	H		73.2	21.1	5.8
I do proofchecking	F	635	117	280	238
	V	52.9	27.1	68.1	66.3
	H		18.4	44.1	37.5
I do not do proofchecking	F	127	9	39	79
	V	10.6	2.1	9.5	22.0
	H		7.1	30.7	62.2
No reply	F	50	27	12	20
	V	4.9	6.3	2.9	5.6
	H		45.8	20.3	33.9
Total	F	1201	431	411	359
	H	100.0	35.9	34.2	29.9

Parents-children.Table 5

Proofchecking		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Cent.
I lock the door	F	147	26	18	58	17	16	12
	V	6.1	6.4	4.5	14.5	4.2	4.0	3.1
	H		17.7	12.2	39.5	11.6	10.9	8.2
I tell him to lock	F	443	73	59	66	106	64	75
	V	18.5	18.1	14.9	16.5	26.0	16.1	19.1
	H		16.5	13.3	14.9	23.9	14.4	16.9
I close the balcony	F	41	8	4	13	6	4	6
	V	1.7	2.0	1.0	3.2	1.5	1.0	1.5
	H		19.5	9.8	31.7	14.6	9.8	14.6
I close the windows	F	49	12	8	6	8	9	6
	V	2.0	3.0	2.0	1.5	2.0	2.3	1.5
	H		24.5	16.3	12.2	16.3	18.4	12.2
I hide everything that could harm him	F	15	4	3	4	2	2	0
	V	0.6	1.0	0.8	1.0	0.5	0.5	0.0
	H		26.7	20.0	26.7	13.3	13.3	0.0
I ask the neighbour to check	F	49	6	8	19	6	8	2
	V	2.0	1.5	2.0	4.7	1.5	2.0	0.5
	H		12.2	16.3	38.8	12.2	16.3	4.1
I put away everything flammable	F	11	3	2	2	2	0	2
	V	0.5	0.7	0.5	0.5	0.5	0.0	0.5
	H		27.3	18.2	18.2	18.2	0.0	18.2
I warn him	F	222	39	52	23	33	51	24
	V	9.3	9.7	13.1	5.7	8.1	12.8	6.1
	H		17.6	23.4	10.4	14.9	23.0	10.8
I do nothing	F	133	24	33	8	3	40	25
	V	5.5	5.9	8.3	2.0	0.7	10.1	6.4
	H		18.0	24.8	6.0	2.3	30.1	18.8
No reply	F	1288*	209	209	201	225	204	240
	V	53.7	51.7	52.8	50.2	55.1	51.3	61.2
	H		16.2	16.2	15.6	17.5	15.8	18.6
Total	F	2398	404	396	400	408	398	392
	H	199.7	16.8	16.5	16.7	17.0	16.6	16.3

*/ Number of replies is larger then the sample because more then one answer was allowed.

Parents-children.Table 6

Do you use the telephone to check your children		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Košum	Kurl. raskr.	Centar
Yes	F	437	44	56	118	88	59	72
	V	59.8	61.1	49.6	76.1	53.0	77.6	48.3
	H		10.1	12.8	27.0	20.1	13.5	16.5
No	F	135	11	17	27	39	11	30
	V	18.5	15.3	15.0	17.4	23.5	14.5	20.1
I do not leave my child alone	F	159	17	40	10	39	6	47
	V	21.8	23.6	35.4	6.5	23.5	7.9	31.5
	H		10.7	25.2	6.3	24.5	3.8	29.6
Total	F	731*	72	113	155	166	76	149
	H	100.0	9.8	15.5	21.2	22.7	10.4	20.4

*/ 731- (60,9% of 1.201) - number of families who have a telephone

Parents-children.Table 8

Do you use the telephone to check your children		Total	Age		
			3 - 7	7 - 11	11 - 14
Yes	F	437	89	195	153
	V	59.8	38.2	70.7	68.9
	H		20.4	44.6	35.0
No	F	135	36	49	50
	V	18.5	15.5	17.8	22.5
	H		26.7	36.3	37.0
I do not leave them alone	F	159	108	32	19
	V	21.8	46.4	11.6	8.6
	H		67.9	20.1	11.9
	F	731*	233	276	222
	H	60.9	31.9	37.8	30.4

*/ 713 (60,9% of 1201/ - number of families who have a telephone

Parents-children. Table ~~1~~9

Do you leave the child at night		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Cengič vila	Koševo	Kurlag. raskr.	Cent.
Alone	F	393	46	53	88	68	71	67
	V	32.7	22.9	26.8	44.0	33.2	35.7	34.0
	H		11.7	13.5	22.4	17.3	18.1	17.0
With a baby sitter	F	615	108	99	96	114	94	104
	V	51.3	53.8	60.0	48.0	51.2	47.2	52.7
	H		17.5	16.0	15.6	18.5	15.2	16.9
You take him with	F	102	28	19	12	9	24	10
	V	8.5	13.9	9.6	6.0	4.4	12.1	5.1
	H		27.5	18.6	11.8	8.8	23.5	9.8
You do not go out	F	90	19	27	4	14	10	16
	V	7.5	9.5	13.6	2.0	6.8	5.0	8.1
	H		21.1	30.0	4.4	15.6	11.1	17.8
Total	F	1200	201	198	200	205	199	197
	H	99.9	16.7	16.5	16.7	17.1	16.6	16.4

Parents-children.Table 10

Do you leave the child at night		Total	Ground floor	1-4 floor	5-8 floor	Above 8 floor
Alone	F	393	63	247	55	28
	V	32.7	29.7	34.8	31.3	27.4
	H		16.0	62.8	14.1	7.1
With a baby sitter	F	615	107	347	103	58
	V	51.3	50.5	48.9	58.5	56.9
	H		17.4	56.4	16.7	9.5
You take him with	F	102	23	61	12	6
	V	8.5	10.8	8.6	6.8	5.9
	H		22.5	59.8	11.8	5.9
You do not go out at night	F	90	19	55		10
	V	7.5	9.0	7.7	3.4	9.8
	H		21.1	61.1	6.7	11.1
	F	1200	212	710	176	102
	V	100	17.6	59.2	14.7	8.5

Parents-children.Table 11

Do you leave the child at night		Total	Age		
			3 - 7	7 - 1	11 - 14
Alone	F	393	29	117	247
	V	32.7	6.7	28.5	69.0
	H		7.4	29.8	62.8
With a baby sitter	F	615	333	205	77
	V	51.2	77.3	49.8	21.5
	H		54.1	33.3	12.6
you take him with	F	102	37	50	15
	V	8.5	8.6	12.2	4.2
	H		36.3	49.0	14.7
You do not go out at night	F	90	32	39	19
	V	7.5	7.4	9.5	5.3
	H		35.6	43.3	21.1
	F	1200	431	411	358
	H	99.9	35.9	34.2	29.8

Parents-children. Table 12

Do the parents take you home from school		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čengić vila	Koš.	Kurl. raskr.	Cent
Yes	F	50	13	9	9	6	9	4
	V	12.7	19.7	14.8	17.3	8.2	13.4	5.3
	H		26.0	18.0	18.0	12.0	18.0	8.0
Sometimes	F	175	21	12	16	36	43	47
	V	44.3	31.8	19.7	30.8	49.3	64.2	61.8
	H		12.0	6.9	9.1	20.6	24.6	26.9
No	F	144	27	34	23	24	14	22
	V	36.5	40.9	55.7	44.2	32.9	20.9	28.9
	H		18.8	23.6	16.0	16.7	9.7	15.3
No reply	F	26	5	6	4	7	1	3
	V	6.6	7.6	9.8	7.7	9.6	1.5	3
	H		19.2	23.1	15.4	26.9	3.8	11
Total	F	395*	66	61	52	73	67	7
	V	100.0	16.7	15.4	13.2	18.5	17.0	19

*/ Only children 7-1 were interviewed

Parents-Children.Table 13

Do you think parents should take childrem home from school		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Sumice	Čeng. vila	Koševo	Kurlag. raskr.	Centa
Yes	F	111	27	21	15	14	21	13
	V	28.1	40.9	34.4	28.8	19.2	31.3	17.1
	H		24.3	18.9	13.5	12.6	18.9	11.7
No	F	186	28	22	24	40	35	37
	V	47.1	42.4	36.1	46.2	54.8	52.2	48.7
	H		15.1	11.8	12.9	21.5	18.8	19.9
Depends on age	F	57	9	15	6	11	5	11
	V	14.4	13.6	24.6	11.5	15.1	7.5	14.5
	H		15.8	26.3	10.5	19.3	8.8	19.3
No reply	F	41	2	3	7	8	6	15
	V	10.4	3.0	4.9	13.5	11.0	9.0	19.7
	H		4.9	7.3	17.1	19.5	14.6	36.6
Total	F	395*	66	61	52	73	67	76
	H	100.0	16.7	15.4	13.2	18.5	17.0	19.2

*/ Only children 7-11 were interviewed

Parents-children, table 14

Do your parents take you home		Total	Do you stay home alone		
			No	Yes	No reply
	F	50	17	30	3
	V	12.7	9.7	14.8	17.6
	H		34.0	60.0	6.0
Sometimes	F	175	69	97	9
	V	44.3	39.4	47.8	52.0
	H		39.4	55.4	5.1
No	F	144	74	66	4
	V	36.5	42.3	32.5	23.5
	H		51.4	45.8	2.8
No reply	F	26	15	10	1
	V	6.6	6.6	4.9	5.9
	H		57.7	38.5	3.8
Total	F	395*	175	203	17
	H	100.0	44.3	51.4	4.3

*/ Interviewed only children 7-11

Parents-children.Table 15

Where do parents spend their leisure time		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
Outside of the house	F	264	45	32	42	41	54	50
	V	22.0	22.3	16.2	21.0	20.0	27.1	25.4
	H		17.0	12.1	15.9	15.5	20.5	18.9
In the house	F	882	144	150	153	163	131	141
	V	73.4	71.3	75.8	76.5	79.5	65.8	71.6
	H		16.3	17.0	17.3	18.5	14.9	16.0
No reply	F	55	13	16	5	1	14	6
	V	4.6	6.4	8.1	2.5	0.5	7.0	3.0
	H		23.6	29.1	9.1	1.8	25.5	10.9
	F	1201	202	198	200	205	199	197
	H	100.0	16.8	[illegible]	16.7	17.1	16.6	16.4

Parents-children. Table 16

How do you spend your free time		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
Working	F	572	82	94	95	103	99	99
	V	47.6	40.6	47.5	47.5	50.2	49.7	50.3
	H		14.3	16.4	16.6	18.0	17.3	17.3
Having fun	F	572	111	88	98	97	89	89
	V	47.6	55.0	44.4	49.0	47.3	44.7	45.2
	H		19.4	15.4	17.1	17.0	15.6	15.6
No reply	F	57	9	16	7	5	11	9
	V	4.7	4.5	8.1	3.5	2.4	5.5	4.6
	H		15.8	28.1	12.3	8.8	19.3	15.8
Total	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

Parents-children.Table 19

Who spends most time with your child		Total	Beograd		Sarajevo		Titovo Užic	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Centar
You yoursels	F	975	165	153	173	170	163	151
	V	81.2	81.7	77.3	96.5	82.9	81.9	76.6
	H		16.9	15.7	17.7	17.4	16.7	15.5
Grand mother grand father	F	132	26	24	15	13	25	29
	V	11.0	12.9	12.1	7.5	6.3	12.6	14.7
	H		19.7	18.2	11.4	9.8	18.9	22.0
Close relatives	F	23	2	6	3	3	4	5
	V	1.9	1.0	3.0	1.5	1.5	2.0	2.5
	H		8.7	26.1	13.0	13.0	17.4	21.7
House-maid	F	39	5	6	4	9	5	10
	V	3.2	2.5	3.0	2.0	4.4	2.5	5.1
	H		12.8	15.4	10.3	23.1	12.8	25.6
Neighbours	F	8	1	1	2	3	0	1
	V	0.7	0.5	0.5	1.0	1.5	0.0	0.5
	H		12.5	12.5	25.0	37.5	0.0	12.5
Daycare people	F	0	0	0	0	0	0	0
	V	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	H		0.0	0.0	0.0	0.0	0.0	0.0
No reply	F	24	3	8	3	7	2	1
	V	2.0	1.5	4.0	1.5	3.4	1.0	0.5
	H		12.5	33.3	12.5	29.2	8.3	4.2
	F	1201	202	198	200	205	199	197
	H	100.0	16.8	16.5	16.7	17.1	16.6	16.4

Parents-children. Table13

Who spends most time with your children		Total	Employed				
			mother	father	both	nether	no reply
you yourself	F	975	30	436	489	11	9
	V	81.2	75.0	97.3	71.0	73.3	100.0
	H		3.1	44.7	50.2	1.1	0.9
Grand mother, grand father	F	132	6	10	113	3	0
	V	11.0	15.0	2.2	1.64	20.0	0.0
	H		4.5	7.6	95.8	2.3	0.0
Close relatives	F	23	1	1	21	0	0
	V	1.9	2.5	0.2	3.0	0.0	0.0
	H		4.3	4.3	91.3	0.0	0.0
House maid	F	39	0	1	38	0	0
	V	3.2	0.0	0.2	5.5	0.0	0.0
	H		0.0	2.6	97.4	0.0	0.0
Neigh-bours	F	8	1	0	6	1	0
	V	0.7	2.5	0.0	0.9	6.7	0.0
	H		12.5	0.0	75.0	12.5	0.0
Daycatte people	F	0	0	0	0	0	0
	V	0.0	0.0	0.0	0.0	0.0	0.0
	H		0.0	0.0	0.0	0.0	0.0
No reply	F	24	2	0	22	0	0
	V	2.0	5.0	0.0	3.2	0.0	0.0
	H		8.3	0.0	91.7	0.0	0.0
	F	1201	40	448	689	15	9
	H	100.0	3.3	37.3	57.4	1.2	0.7

Parents-children. Table 19

Going for a weekend		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr	Cent
Do you take your child with	F	1120	192	183	183	195	178	189
	V	93.3	95.0	92.4	91.5	95.1	89.4	95.9
	H		17.1	16.3	16.3	17.4	15,9	16.9
Leave him at home	F	30	3	2	12	3	8	2
	V	2.5	1.5	1.0	6.0	1.5	4.0	1.0
	H		10.0	6.7	40.0	10.0	26.7	6.7
	F	37	4	11	2	4	12	4
	V	3.1	2.0	5.6	1.0	2.0	6.0	2.0
	H		10.8	29.7	5.4	10.8	32.4	10.8
No reply	F	14	3	2	3	3	1	2
	V	1.2	1.5	1.0	1.5	1.5	0.5	1.0
	H		21.4	14.3	21.4	21.4	7.1	14.3
Total	F	1201	202	198	200	205	199	197
	V	100.0	16.8	16.5	16.7	17.1	16.6	16.4

Parents-children. Table 20

Do your child like you to take him somewhere		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Cent
Yes	F	1072	185	180	184	180	170	173
	V	89.3	92.0	90.9	92.0	87.8	85.4	87.
	H		17.3	16.8	17.2	16.8	15.9	16.1
No	F	115	15	17	12	25	22	2
	V	9.6	7.5	8.6	6.0	12.2	11.1	12.
	H		13.0	14.8	10.4	21.7	19.1	20.9
No reply	F	13	1	1	4	0	7	
	V	1.1	0.5	0.5	2.0	0.0	3.5	0.
	H		7.7	7.7	30.8	0.0	53.8	0.
Total	F	1200	201	198	200	205	199	197
	H	89.9	16.7	16.5	16.7	17.1	16.6	16.4

Parents-children. Table 21

Do you often take your child where he wants		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
Yes	F	782	128	112	164	148	115	115
	V	65	68.4	61.5	85.4	76.1	65.0	65.7
	H		16.4	14.3	21.0	18.9	14.7	14.7
No	F	285	57	67	24	30	54	54
	V	23.7	30.5	36.8	12.5	15.2	30.5	30.3
	H		20.0	23.5	8.4	10.5	18.9	18.6
No reply	F	43	2	3	4	19	8	7
	V	3.5	1.1	1.6	2.1	9.6	4.5	4.0
	H		4.7	7.0	9.3	44.2	18.6	16.3
	F	1110	187	182	192	197	177	175
	H	92.4	16.8	16.4	17.3	17.7	15.9	15.8

Parents-children. Table 22

Can you take your child where he likes		Total	Employed				
			father	mother	both	none	No reply
Yes	F	782	24	290	451	11	6
	V	70.5	63.2	71.1	70.2	78.6	75.0
	H		3.1	37.1	57.7	1.4	0.8
No	F	285	13	100	169	1	-
	V	25.7	34.2	24.5	26.3	7.1	25.0
	H		4.6	35.1	39.3	0.4	0.7
No reply	F	43	1	18	22	2	0
	V	3.9	2.6	4.4	3.4	14.3	0.
	H		2.3	41.9	51.2	4.7	0.
Total	F	1110	38	408	642	14	
	H	92.4	3.4	36.8	57.8	1.3	0.7

How do you spend your free time		Total	Can you take your child where he like		
			Yes	No	No reply
Working	F	520	338	159	23
	V	46.8	43.2	55.8	53.5
	H		65.0	30.6	4.4
Having fun	F	539	412	109	18
	V	43.6	52.7	38.2	41.9
	H		76.4	20.2	3.3
No reply	F	51	32	17	2
	V	4.6	4.1	6.0	4.7
	H		62.7	33.3	3.9
Total	F	1110	782	285	43
	H	92.4	70.5	25.7	3.9

Parents-children,Table 24

Where does your		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurlag. raskr.	Centar
To your frend's children	F	249	55	39	27	46	31	51
	V	7.2	9.7	7.1	4.7	7.7	5.2	8.7
	H		22.1	15.7	10.8	18.5	12.4	20.5
To the play-ground	F	197	43	42	32	34	21	25
	V	5.7	7.6	7.7	5.6	5.7	3.5	4.3
	H		21.8	21.3	16.2	17.3	10.7	12.7
To the park	F	504	127	84	89	60	72	62
	V	14.5	22.4	15.4	15.5	10.1	13.7	10.6
	H		25.2	16.7	17.7	11.9	16.3	12.3
Children's theatre	F	168	39	40	11	48	12	18
	V	4.8	6.9	7.3	1.9	8.0	2.0	3.1
	H		23.2	23.8	6.5	28.6	7.1	10.7
To children's movie	F	304	41	47	59	86	43	28
	V	8.8	7.2	8.6	10.2	14.4	7.2	4.8
	H		13.5	15.5	19.4	28.3	14.1	9.2
To close relatives	F	205	36	30	21	15	58	45
	V	5.9	6.3	5.5	3.6	2.5	9.7	7.7
	H		17.6	14.6	10.2	7.3	28.3	22.0
To the ZOO	F	334	52	53	114	110	3	2
	V	9.6	9.2	9.7	19.8	18.4	0.5	0.3
	H		15.6	15.9	34.1	32.9	0.9	0.8
To the country	F	158	7	17	7	11	50	66
	V	4.6	1.2	3.1	1.2	1.8	8.4	11.3
	H		4.4	10.8	4.4	7.0	31.6	41.8
To the patisserie	F	2	2	0	0	0	0	0
	V	0.1	0.4	0.0	0.0	0.0	0.0	0.0
	H		100.0	0.0	0.0	0.0	0.0	0.0
No reply	F	1348	166	194	216	187	297	288
	V	38.9	29.2	35.5	37.5	31.3	49.7	49.2
	H		12.3	14.4	16.0	13.9	32.0	21.4
	F	3469	568	546	576	597	597	585
	H	288.8	16.4	15.7	16.6	17.2	17.2	16.9

* More then one reply was allowed

Parents-children.Table 25

Where does your child like you to take him		Total	Age		
			3 - 7	7 - 11	11 - 14
To your friends children	F	249	108	95	46
	V	7.2	8.4	7.8	4.8
	H		43.4	38.2	18.5
To the playground	F	197	97	62	38
	V	5.7	7.6	5.1	3.9
	H		49.2	31.5	19.3
To the park	F	504	212	183	109
	V	14.5	16.6	15.0	11.3
	H		42.1	36.3	21.6
to children's theatre	F	168	51	75	42
	V	4.8	4.0	6.1	4.3
	H		30.4	44.6	25.0
To children's movie	F	304	60	127	117
	V	8.8	4.7	10.4	12.1
	H		19.7	41.8	38.5
To close relatives	F	205	79	80	46
	V	5.9	6.2	6.5	4.8
	H		38.5	39.0	22.4
To the 200	F	334	151	118	65
	V	9.6	11.8	9.6	6.7
	H		45.2	35.3	19.5
To the country	F	158	46	62	50
	V	4.6	3.6	5.1	5.2
	H		29.1	39.2	31.6
To the patisserie	F	2	1	1	0
	V	0.1	0.1	0.1	0.0
	H		50.0	50.0	0.0
No reply	F	1348	474	421	453
	V	38.9	37.1	34.4	46.9
	H		35.2	31.2	33.6
	F	3469	1279	1224	966
	H	288.8	36.9	35.3	27.8

* More then one reply was allowed

Parents-children. Table 26

Do you let your child go alone		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
Yes	F	399	75	65	53	97	48	61
	V	33.4	38.5	33.0	26.5	47.3	24.1	31.0
	H		18.8	16.3	13.3	24.3	12.0	15.3
No	F	731	116	128	138	97	139	113
	V	61.3	59.5	65.0	69.0	47.3	69.8	57.4
	H		15.9	17.5	18.9	13.3	19.0	15.5
No reply	F	63	4	4	9	11	12	23
	V	5.3	2.1	2.0	4.5	5.4	6.0	11.7
	H		6.3	6.3	14.3	17.5	19.0	36.5
	F	1193	195	197	200	205	199	197
	H	99.3	16.3	16.5	16.8	17.2	16.7	16.5

Parents-children.Table 27

Do you let your child go downtown alone		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čengić vila	Koševo	Kurl. raskr.	Centar
No	F	525	89	62	117	128	67	62
	V	67.3	66.4	62.6	80.6	75.7	60.3	51.2
	H		17.0	11.8	22.8	24.4	12.8	11.8
Yes	F	240	44	37	21	36	44	58
	V	30.7	32.8	37.3	14.4	21.3	39.6	47.9
	H		18.3	15.4	8.7	15.0	18.3	24.2
I do not care if he does	F	4	1	0	1	1	0	1
	V	0.5	0.7	0.0	0.6	0.5	0.0	0.8
	H		25.0	0.0	25.0	25.0	0.0	25.0
No reply	F	11	0	0	7	4	0	0
	V	1.4	0.0	0.0	4.82	2.36	0.0	0.0
	H		0.0	0.0	63.6	36.3	0.0	0.0
Total	F	780*	134	99	145	169	111	121
	H	100.0	17.1	12.6	18.5	21.6	14.2	15.5

*/ Interviewed children 7-11

Do your parents let you go downtown alone		Total	Beograd		Sarajevo		Titovo Užice	
			Banovo brdo	Šumice	Čeng. vila	Koševo	Kurlag raskr.	Centar
Yes	F	152	22	22	24	31	28	25
	V	39.5	31.9	33.3	35.3	44.9	45.2	49.0
	H		14.5	14.5	15.8	20.4	18.4	16.4
Sometimes	F	128	16	20	19	26	27	20
	V	33.2	23.2	30.3	27.9	37.7	43.5	39.2
	H		12.5	15.6	14.8	20.3	21.1	15.6
No	F	57	18	16	23	0	0	0
	V	14.8	26.1	24.2	33.8	0.0	0.0	0.0
	H		31.6	28.1	40.4	0.0	0.0	0.0
No reply	F	48	13	8	2	12	7	6
	V	12.5	18.8	12.1	2.9	17.4	11.3	11.8
	H		27.1	16.7	4.2	25.0	14.6	12.5
Total	F	385	69	66	68	69	62	51
	V	100.0	17.9	17.1	17.7	17.9	16.1	13.2

Parents-children Table 29

Do you go out with your parents		Total	Beograd		Sarajevo		Titovo Užic	
			Banovo brdo	Šum.	Čeng. vila	Koševo	Kurl. raskr.	Centar
Often	F	158	35	25	31	18	30	19
	V	41.5	50.7	37.9	46.3	27.3	48.4	37.3
	H		22.2	15.8	19.6	11.4	19.0	12.0
Seldom	F	213	31	41	35	45	29	32
	V	55.9	44.9	62.1	52.2	68.2	46.8	62.7
	H		14.6	19.2	16.4	21.1	13.6	15.0
No reply	F	10	3	0	1	3	3	0
	V	2.6	4.3	0.0	1.5	4.5	4.8	0.0
	H		30.0	0.0	10.0	30.0	30.0	0.0
	F	381	69	66	67	66	62	51
	H	99.0	18.1	17.3	17.6	17.3	16.3	13.4

Parents-children. Table 30

Where do your parents take you		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čeng. vila	Koševo	Kurl. raskr.	Cent.
To frends and relatives	F	96	18	18	10	19	18	13
	V	24.9	26.1	27.3	14.7	27.5	29.0	25.5
	H		18.8	18.8	10.4	19.8	18.8	13.5
To have fun	F	24	10	0	4	3	3	4
	V	6.2	14.5	0.0	5.9	4.3	4.8	7.8
	H		41.7	0.0	16.7	12.5	12.5	16.7
To the playground	F	6	3	0	0	1	1	1
	V	1.6	4.3	0.0	0.0	1.4	1.6	2.0
	H		50.0	0.0	0.0	16.7	16.7	16.7
To a sporting place	F	7	3	2	1	1	0	0
	V	1.8	4.3	3.0	1.5	1.4	0.0	0.0
	H		42.9	28.6	14.3	14.3	0.0	0.0
shopping	F	28	4	3	4	11	3	3
	V	7.3	5.8	4.5	5.9	15.9	4.8	5.9
	H		14.3	10.7	14.3	39.3	10.7	10.7
Movies	F	23	10	5	4	1	2	1
	V	6.0	14.5	7.6	5.9	1.4	3.2	2.0
	H		43.5	21.7	17.4	4.3	8.7	4.3
Country	F	103	5	20	25	19	15	19
	V	26.8	7.2	30.3	36.8	27.5	24.2	37.3
	H		4.9	19.4	24.3	18.4	14.6	18.4
Everwhere[1]	F	4	0	1	3	0	0	0
	V	1.0	0.0	1.5	4.4	0.0	0.0	0.0
	H		0.0	25.0	75.0	0.0	0.0	0.0
No reply	F	94	16	17	17	14	20	10
	V	24.4	23.2	25.8	25.0	20.3	32.3	19.6
	H		17.0	18.1	18.1	14.9	21.3	10.6
Total	F	385	69	66	68	69	62	51
	H	100.0	17.9	17.1	17.7	17.9	16.1	13.2

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1) Alternatives were made up according to the answers of children, not beforehand.

Parents-children. Table 31

Who do you prefere to go out with		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čeng. vila	Koševo	Kurl. raskr.	Cent
With your parents	F	49	11	7	14	6	5	6
	V	12.8	15.9	10.6	20.9	9.0	8.1	11.8
	H		22.4	14.4	28.5	12.2	10.2	12.2
With friends	F	275	43	43	48	49	50	42
	V	72.2	51.7	28.2	38.1	74.4	80.6	82.3
	H		15.6	15.6	16.6	17.4	18.2	15.2
With both	F	42	12	16	5	1	6	2
	V	11.0	17.4	24.2	7.5	1.5	9.7	3.9
	H		28.6	38.1	11.9	2.4	14.3	4.8
No reply	F	15	3	0	0	10	1	1
	V	3.9	4.3	0.0	0.0	15.2	1.6	2.0
	H		20.0	0.0	0.0	66.7	6.7	6.7
	F	381	69	66	67	66	62	51
	H	99.0	18.1	17.3	17.6	17.3	16.3	13.4

Parents-children.Table 32

Where do you and your friends go		Total	Beograd		Sarajevo		T.Užice	
			Banovo brdo	Šum.	Čeng. vila	Koš.	Kurl. raskr.	Cent
Movies theatre	F	174	32	30	33	40	19	20
	V	45.7	46.4	45.5	49.3	60.6	30.6	39.2
	H		18.4	17.2	19.0	23.0	10.9	11.5
To the park	F	41	9	9	7	0	9	7
	V	10.8	13.0	13.6	10.4	0.0	14.5	13.7
	H		22.0	22.0	17.1	0.0	22.0	17.1
To football match	F	30	4	3	7	4	7	5
	V	7.9	5.8	4.5	10.4	6.1	11.3	9.8
	H		13.3	10.0	23.3	13.3	23.3	16.7
To the concert	F	5	1	1	0	0	1	2
	V	1.3	1.4	1.5	0.0	0.0	1.6	3.9
	H		20.0	20.0	0.0	0.0	20.0	40.0
To the patisserie	F	3	0	0	0	2	1	0
	V	0.8	0.0	0.0	0.0	3.0	1.6	0.0
	H		0.0	0.0	0.0	66.7	33.3	0.0
To visit friends	F	11	3	2	5	1	0	0
	V	2.9	4.3	3.0	7.5	1.5	0.0	0.0
	H		27.3	18.2	45.5	9.1	0.0	0.0
Shopping	F	13	1	5	3	3	1	0
	V	3.4	1.4	7.6	4.5	4.5	1.6	0.0
	H		7.7	38.5	23.1	23.1	7.7	0.0
The library	F	4	0	0	0	3	1	0
	V	1.0	0.0	0.0	0.0	4.5	1.6	0.0
	H		0.0	0.0	0.0	75.0	25.0	0.0
No reply	F	100	19	16	12	13	23	17
	V	26.2	27.5	24.2	17.9	19.7	37.1	33.3
	H		19.0	16.0	12.0	13.0	23.0	17.0
	F	381	69	66	67	66	62	51
	H	99.0	18.1	17.3	17.6	17.3	16.3	13.4

PART EIGHT: HEALTH FACTORS

The purpose of gathering health data on the children in this study is to gain an insight into their overall health, particularly in the situations in which deviations from full health prevent the child from fully participating in play with his age mates and interfere with his use of space.

The data obtained through the health inventory may nevertheless be considered as secondary. This derives from the general difficulty of defining health and the particular difficulties in reliably determining the state of health of individual children.

The number of children investigated is sufficiently high only at first glance.[1] A deeper look shows that there are not enough to set up subgroups large enough to permit us to draw statistically significant conclusions.

The combining of preschoolers and schoolchildren in this study represented an additional barrier to worthwhile conclusions. By requiring certain physical and mental health standard schools screen out of the educational process a portion of the entry-level age group: as a result, such children were also excluded from our study.

Difficulties in evaluating and quantifying health irregularities in the children we studied and in ranking children according to their mental and sensory capacity within a range of normal values for given age levels -- which is unquestionably desirable -- forced us to separate out of the total number of children those who were to some degree disabled.

The parameters for determining the existence and degree of disability were objective (as far as possible) and consistent for all three cities. However, considering the degree to which the disability affects the child's unhampered participation in play, we freely grouped types of disability. The three groups of handicapped children were:

I children with major disabilities,

II children with moderate disabilities,

III children with minor limitations.

It goes without saying that these divisions could be disputed, particularly the last two groups (groups II and III).

I. Children with Major Disabilities included those with the following handicaps:

1. Significant damage to the locomotor apparatus,
2. Significant damage to the nervous system,
3. Significant behavior disturbances.

There were few such children: there were six with serious locomotor damage, 7 with neurological disturbances, only 1 with behavior disturbances, making for a total of 14 children or 1.7% of the total number of children studied. There was every chance for this group to be larger, but after inquiry at home and in various institutional settings, the overwhelming majority of the children did not fall in this category.

II The group of children with moderate limitations included:

1. hearing impairments (three cases -- 0.4%),

   One assumes that there were more of such children, but that they partially went undiscovered by the instrument.

2. Sight impairment (47 cases -- 5.5%)

   Here we included only those who had a vision impairment of more than 3 diopters and who consequently must wear eyeglasses all the time. There are valid arguments for questioning whether this degree of vision impairment is a great barrier to a child's participation in play, but it most certainly has a definite influence.

3. Bronchial asthma of significant intensity, rheumatic heart disease, etc.

There were 24 such children, or 2.8% of the total number of children. There was a high degree of differentiation in this group, i.e., a wide range of degree of limitation on physical activitiy. However, it was not possible to quantify this range precisely, and thus we adopted the compromise measure of categorizing all children with disabilities of this sort as having moderate limitations. Nevertheless there remain differences between those whose physical condition constitutes a serious limitation on play participation and those whose condition hardly limits activitiy at all.

4. Obese children

There were 30 such children, or 3~~0~~.5% of the sample. Obesity imposes both mental and emotional limitations on a child, leading in the final analysis to a special and always limited manner of taking part in play.

5. Children with minor brain dysfunction

There were 7 such children in the sample -- 0.8%. This is most important from the standpoint of emotional readiness for effective participation in play with friends and playmates. Unfortunately, there are great difficulties in discovering such children through an instrument as crude as our health inventory. On the basis of indirect data one concludes that the actual number of these children was several times greater than cited here.

6. Children who visited doctors more than six times in the course of a year for acute respiratory infections.

There were 57 such children -- 6.7%. We assumed that more than 6 acute respiratory infections during the year signified an inadequate immunological system and a barrier to participation in play and to school attendance. Frequent respiratory illness has the indirect effect of altering the parents´ usual approach to the child, leading to the child´s increasing inability to participate as an equal in play activities.

III. Children with minor limitations.

1. Children with body weights 3% under the age group norm.

There were 57 such children -- 6.7%. These children can only provisionally be considered underfed, because the entire study was carried out in a socioeconomic stratum in which the quantative and qualitative intake of food does not represent a problem. It is obvious that insufficient weight is not only the result of genetic factors but of upbringing as well.

2. Children whose height is 3% under the age group norm

   There were 45 such children -- 5.3%. Here as well genetics consitituted the decisive factor.

3. Children with poor school performance

   There were 24 such children -- 2.8%. One might dispute the justification of including this parameter in a consideration of the child from the standpoint of play participation, yet it is likely that parents (insofar as the child is not from a broken home) restrict or cut off the child's play activities in order to improve school performance.

4. Children from broken homes

   There were 29 such children, 3.4%. It is likely that this figure does not reflect the real situation, nor does it indicate the degree to which inadequate families can affect the child's behavior and the manner in which he participates in play. Some parents, after the dissolution of the first marriage, then create new families and the children from the first marriage are either cared for by grandparents or are included in the new families where they undergo serious emotional trauma that cannot be reliably measured.

The disabilities which we encountered were not concentrated in a single place but were relatively evenly distributed in the various cities. Since the number of illness is small there is no point in placing stress on the distribution of illnesses in cities and residential complexes.

Although the absolute numbers in Table 1 prevent us from drawing firm conclusions, we will offer descriptive commentary, establishing phenomena, but not searching for causes.

Table 1 shows the following.

-- Of the two children with impaired hearing, one is male and one is female.

-- The number of female children with impaired vision is nearly twice the number of male children with the same defect.

-- Motor impairments of the eye are more frequent among female children (5:1).

-- Neurological motor impairments were encountered in approximately equal proportions in both sexes.

-- Girls tend to lead in the number of other motor impairment

-- There are no outstanding sex differences in the case of minor brain dysfunction.

-- The only case of behavior disturbance was attributed to a female child.

It is difficult to believe in the numerical reliability of the last datum. Unfortunately, besides the difficulty in establishing measures for determining behavior disorders and for categorizing them in a meaningful hierarchical order, these disorders lie at the boundaries of the competence of the medical personnel who were our source of information for the health inventory. Furthermore, as a rule, families who have problems with the behavior of their children feel called upon to treat these problems themselves, reacting to failure by attempts to cover up the behavior disturbance or -- possibly -- by seeking professional help. This may be either the school psychologist or psychologists or psychiatrists from an outpatient health clinic. In any case we encounter the necessary discretion imposed by the ethics of these professions. Additionally, the nature of behavior disorders requires a broad analysis and description of the sociopsychological environment by the person treating disturbances which never appear on the child's health records. For these reasons, the investigators were not able to obtain the necessary documentation.

In Table 2 we attempted to test the correlation between impairments and school performance (simply to test the existence of the correlation, without pretentions of establishing its intensity).

Health Table 1

Sex		Type of Impairment								
		Sensory		Motor			Mental			
		Hearing	Vision	Eye	Neuro. logical	Other	Minor brain dysfunction	Behavior Disturbance	TOTAL	
Female	F	1	27	5	3	14	4	1	55	52
	H	1.8	49.1	9.1	5.45	25.45	7.3	1.8	100.0	
	V	50.0	65.9	83.3	42.9	58.3	57.1	100.0	62.5	
Male	F	1	14	1	4	10	3	-	33	32
	H	3.0	42.4	3.0	12.2	30.3	9.1		100.0	
	V	50.0	34.1	16.7	57.1	41.7	42.9		37.5	38.1
Total	F	2	41	6	7	24	7	1	88*	84
	H	2.3	46.6	6.8	7.95	27.3	7.95	1.1	100.0	
	V	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

*One child may have several types of impairment.

Health Table 2

School Performance		Type of Impairment								
		Sensory		Motor			Mental			
		Hearing	Vision	Eye	Neuro. logical	Other	Minor brain dys-function	Behavior disturbances	TOTAL	
Preschool	F	2	5	2	3	10	4		26	24
	H	7.7	19.2	7.7	11.5	38.5	15.4		100.0	
	V	100.1	12.2	33.3	42.9	41.7	57.1		29.5	28.6
Excellent	F		20	2	1	8	1		[illegible]	32
	H		62.5	6.3	3.1	25.0	3.1		100.0	
	V		48.8	33.3	14.2	33.3	14.3		36.4	38.1
Very good	F		13	1	-	4	1	-	19	18
	H		68.4	5.3		21.0	5.3		100.0	
	V		31.7	16.7		16.7	14.3		21.6	21.4
Good	F		3	1		2	1		7	7
	H		42.8	14.3		28.6	14.3		100.0	
	V		7.3	16.7		8.3	100.0		8.0	8.3
Poor	F				3		1	-	4	3
	H				75.0		25.0		100.0	
	V				42.9		14.3		4.5	3.6
Total	F	2	41	6	7	24	7	1	88	84
	V	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Health Table 3

Apartment Size		Residents in Apartment						
		2	3	4	5	6	8	Total
Efficiency	F	1	1					2
	H	50.0	50.0					100.0
	V	100.0	4.3					2.4
One room	F		6	6				12
	H		50.6	50.0				100.0
	V		26.1	15.4				14.3
1-1/2 rm	F		3	2	1			6
	H		50.0	33.3	16.7			100.0
	V		13.1	5.1	7.15			7.1
2-room	F		8	25	7	3	1	44
	H		18.2	56.8	15.9	6.8	2.3	100.0
	V		34.8	65.1	50.0	50.0	100.0	52.4
2-1/2 rm	F		4	6	3	1		14
	H		28.6	42.9	21.4	7.1		100.0
	V		17.4	15.4	21.4	16.7		16.7
3-room	F		1		2	2		5
	H		20.0		40.0	40.0		100.0
	V		4.3		14.3	33.3		5.9
4-room & more	F				1			1
	H				100.0			100.0
	V				7.15			1.2
Total	F	1	23	39	14	6	1	84*
	V	100.0	100.0	100.0	100.0	100.0	100.0	100.0

*Table includes all children with any sort of impairment

Impairments should be divided into those which can with certainty be correlated with spatial conditions and those that cannot. Those that are related may be separately tabulated as such:

	% in sample	% of apartments in which children are impaired
Efficiency	2.1%	2.4%
1 room	15.6%	14.3%
1.5 room	3.5%	7.1%
2 room	58.1%	52.4%
2.5 room	11.4%	16.7%
3 room	7.6%	5.9%
4 room and larger	.7%	1.2%

In comparing the percent of apartment sizer with the percent of apartments of the same size having children with established impairments, one notes divergences in the case of 1.5 room and 2.5 room apartments. There are more children with impairments living in apartments of these sizes. This would be indicative only after controlling for a number of other family characteristics, other characteristics of the children themselves, and the quality of the apartments in which impaired children live.

The largest number of cases of impaired children was found in four-member families (46.4% of all sample families with impaired children). One notes four-member families make up

50.5% of the general sample and thus there is no correlation between family size and child impairment.

RECOMMENDATIONS

The recommendations presented here are the result of the investigators' experience, based on (a) interviews, (b) observation of play areas, (c) other studies of this nature conducted in Yugoslavia and abroad, and (d) comparisons with other types of playgrounds visited during the study.

PLAYGROUNDS

Position

The most advisable distance to the playground from housing cannot be expressed in figures. What we recommend here are factors that should be taken into account in determining distance, listing them in order of importance.

-- Building type has an influence on the length of the route to the playground and upon safety, i.e., the possibility of the child's making his own way there. It may not be assumed that parents with small children always live on lower floors, and so in calculating distance (if a high rise is in question) distance should be estimated from the uppermost floor.

-- Apartment orientation (visual contact between the apartment window and the playground) affects not only parents' peace of mind but the child's sense of security. Thus whenever possible the playground should be positioned so that as many apartments as possible may have a view of the playground.

-- Traffic safety is imperative for playground location. The playground serves children from two to a maximum of twelve years of age. (Beyond twelve years of age children lose interest in this facility.) Research in Sweden and Germany has proven that a child under 12 has not acquired enough skill to safely handle situations in which he is threatened by traffic. In order to ensure safe travel from the apartment to the playground it is advisable to design a front-to-back ground floor hall in the apartment building, with one entrance (exit) facing the playground.

-- The attractiveness of the travel destination (the playground) is one of a complex of factors playing an important role. Not only should the path to the playground be unbroken and clearly point the way, but from the building entrance one should be able to see the playground or at least one entrance to the playground. (And conversely, from the playground one should be able to see and distinguish the building entrance with ease.) Care should be taken not to place more attractive goals along the route to the playground if the approach to these facilities is any less secure. The minimal distance between the playground and housing in order to avoid disturbing residents need not be specified because the major disturbance is the clamor of children at play, and this can be eliminated through the strategic placement of greenery to form a protective noise screen. Furthermore, one-level residential buildings should be designed not to discourage but rather to encourage children to gather around the entrance.

Design

Moving playground equipment (swings, playground carrousels, seesaws) and bicycle paths should be separated by hedges, slight depressions, and the like from the play area for very small children.

The playground should be separated from playfields for young people not only functionally but spatially as well, by means of effective barriers. In most cases it is sufficient for the playfield to be depressed, separated from the children´s playground by means of amphitheater-style terracing (toward the playfield) and a slope with bushes.

One should not discount the possibility of placing a high fence (over 2 m) along the side of the playfield bordering the playground, although as a rule the playfield and the playground should be further apart, with the playfield located at a greater distance from housing than the playground.

Besides the playfield, it is recommendable to locate an adult recreation area (exercise facilities, bowling, etc.) either close to the playground or on the playground. Thus adults will be able to supervise children at the same time they are setting them an example, something children both want and need in parents. The study has shown that the presence of parents passively sitting near the playground interferes with children´s play as parental supervision is too severe: the child is too frequently cautioned and forbidden to do things. For small children, the presence of parents somewhere in the vicinity is more important psychologically than being constantly watched and protected from possible hurts: for the child should not be deprived of facing ordinary situations on his own.

The playground is generally not fenced in, a fact which has its advantages and disadvantages. Major disadvantages include: the absence of special cleaning procedures; the lack of complete safety from accidents and anxiety about a child wandering away; and the impossibility of safeguarding equipment and maintaining the playground. One of the consequences of the last is the meagerness of stationary equipment and the absence of portable play aids and playthings.

On the other hand, children in the 7 - 11 age group always move about in an area larger than a special playground area. If the playground is to compensate for cramped housing, then there is justification for not installing fencing, or designing fencing as barriers (hedges, ditches, mounds, etc.) and placing it only on that side of the playground which absolutely requires fencing rather than all the way around the playground.

Some kinds of playgrounds, such as adventure playgrounds, are inconceivable without fencing, since basic materials must be stored, and children must be directed in their use. This suggests the inclusion of such playgrounds within daycare centers, with approach from two sides: from the daycare center playground and from the open spaces of the residential complex. This, of course, broadens the function of the daycare center, a fact which has implications for space requirements and design treatment, and for the utilization of professionals and the organization of staff in the center itself.

If neighborhood open spaces are to be public, they must be expanded functionally since the expectation is that they will accordingly meet a broader range of needs for various groups and age levels. This recommendation counters the many failings of an unbounded space that belongs to everyone and no one.

Thus it is advisable for designers to take into consideration the concept of open spaces that include enclosed space, with the enclosed areas subsidiary to the broader open space. Here we have in mind a canopy, or similar protection from the sun and inclement weather, a children's toilet, a storeroom for tools and materials, etc.

The care of these structures could be entrusted to older children, whose lack of a gathering place makes them the most disadvantaged gage group in all new residential complexes, including the ones we studied.

This concept would have distinct advantages for the functioning of adventure playgrounds. It would lead to cooperation between professionals from the daycare center and the young people of the neighborhood who would help organize the play activities of younger children during the day and would use these facilities at night.

Sharply contoured terrain is a help in creating environmentally segregated microareas. Thus, when the terrain is contoured, the designer should preserve its natural shape. If it is flat, then contoured elements (ditches, embankments, trenches, tunnels, grottos, etc.) should be introduced.

The designer should think in terms of the preservation of the terrain as an environmental unit, with the natural vegetation.

Aside from its cleansing biological properties and salutary influence on the microclimate (humidifying and filtering the air, inducing wind currents) greenery offers the designer purely functional advantages. (a) Grass ground cover is necessary for some kinds of games. Part of the lawn -- whose only purpose is to please the eye -- should be set aside for tough wear and tear, and should be sod with special strains of grass and specially maintained. (b) Shrubs serve as an effective barrier, providing natural segregation of subareas, shielding children from possible danger, muffling the clamor of children at play, acting as a windbreak, and serving as a shelter in play activity. (c) Greenery may serve as an object for testing skills. Aside from providing invaluable shade on the usually denuded open spaces of residential complexes, the branches of a shade tree offer a fine opportunity for tree-climbing. Of course, several generations of children may grow up in a residential complex before a tree is big enough to be climbed on or to offer shade. It should not be impossible, however, to work out some sort of preliminary substitute -- creeper vines and latticed pergolas, for instance.

Land configuration and the functional disposition of greenery is not an end in itself. If the designer treats this problem with care, the playground will fulfill its purpose even in wintertime. When constructed of natural materials, many playground fixtures gain in eye appeal and usefulness in the winter season.

The designer should be aware of the effect of seasonal changes on greenery, and be alert to the ratio of deciduous to evergreen vegetation: the constant change in vegetation reflecting the seasons is a source of special interest to children.

DAYCARE CENTERS

Building Types

Daycare centers in new developments are usually isolated structures, located in the middle of neighborhood open spaces for reasons of safety.

Designers should consider other locations and weigh the possibility of coordinating daycare structures with other neighborhood facilities. As a basic principle it is best to establish a number of smaller spatial units in conjunction with residential structures or separate from them, either as separate structures or as units attached to local service facilities.

It is recommendable to explore the possibilities offered by prefabricated construction and mobile units so as to neutralize enrollment oscillations.

It is not advisable to combine nursery and daycare facilities in the same structure: for nursery children the emphasis is on medical care and hygiene, while for the daycare children the emphasis is on education and training.

Furniture is mobile and replaceable, but the structure and its equipment are not, and should hence be designed to make allowance for children's limitations (height of windows, doorknobs, light switches, etc.).

If there is a flat roof, it should be accessible to children and functionally defined for specific activities (sunbathing, showering, flower-raising, bowling, airplane-flying, etc.).

Design

The dayroom should be laid out as an integral space with subareas for play, eating, and sleeping. These subareas should be formed by the suitable arrangement of equipment and furnishings.

Each child should have his own bed, to be used for play and sleeping in accordance with his desires.

The size of these multifunctional spaces should not be larger or spatially more complex than an average apartment, as a measure of the area a child can deal with.

Moveable furnishings (furniture) should be of a kind that can be handled by the child himself. The child should be able to withdraw into some pieces of furniture, so that if he wants he can play with it and in it.

The spatial layout should permit easy passage from one area to another, allowing the child to wander, satisfy his curiosity and his occasional desire to be alone. The child should also have access to those auxiliary facilities that are used by craftsmen or manual workers (kitchen, ironing area, workshop, tool and equipment storage). If access is impracticable, the child should at least have a chance to peer into these areas through a small window set at a suitable height. If access is to be barred, it should be done with simple means (ordinary doorhandle at a height of 1 m 80 cm, etc.).

The design, number, and size of the auxiliary facilities should help support a wide range of activities. Attention should be given to the dimensions and furnishings of the circulation areas, the cloakrooms, and toilet facilities.

There should be a minimum of hallway space extending for long distances without affording views of the rooms that line it.

Several functionally varied dayrooms should be combined into one room large enough to hold all age groups, permitting mixed play activities. It is more important for activities to be diverse than for them to be precisely scheduled.

There should be facilities for water play (spigots, etc.) in the commons area: we consider water to be particularly important in play activities.

Planned activities (those activities teachers set for particular times of day) should not be entirely free of effort for the child or free of danger, but the degree of danger should be in line with the age level of the child.

It is advisable to have both male and female staff in the day-care center in accordance with the natural situation of the family.

There should be easy, direct access between the dayrooms and the yard, permitting the child frequent transitions from one environment to the other.

The number of children per section should accord with socio-psychological and educational principles. Imposed collectivization should not take the place of the socialization of the child. There should be no attempt to force a halt to the phase of individual play, for there are no hard and fast age limits for particular games: these rather are the result of individual characteristics and the child´s personality.

There should be no attempt to protect the child completely from injury, and neither should the concept of neatness be overly rigid. For a being still on the sensory level, direct experience is more important than order. To require neatness is to deprive the child of a number of activities in which sensory experience may be gained. Teachers should ensure the availability of fingerpaints, materials that can be cut into pieces, wood shavings, string, odds-and-ends. Professional staff should take a more relaxed attitude toward the use of materials, since this is the precondition for the development of skill in the child. Instead of forbidding things, teachers should select cheap materials that grown-ups either consider unusable or throw away as waste.

In the selection of the materials and the treatment of interior walls and facing, and in the choice of furniture, close attention should be given to ease of maintenance and the saving of time and effort. Designing daycare facilities with practicality in mind is not a way of forbidding disorder but rather a possibility of establishing order with ease: some disorder is inherent in all work with the hands, and is in no way equivalent to lack of discipline and disorder. The child´s natural lucidity is structured through the choice between various objects and activities offered rather than through second guessing on the part of teachers as to what is best and most useful for each and every child.

Toys and Playthings

It is not advisable to purchase a large number of ready-made toys.

The child should be encouraged to gather and improvise objects to make toys, to find new purposes for familiar objects, and to make something new out of parts of worn out objects.

Daycare centers should always have supplies for making toys (glue, water colors, cardboard, leather, wool, string, spools, colored paper, styrofoam, rags, wire, tinfoil, sponges). Materials that offer variety to the eye and to the touch are very useful to children of this age group.

There is a great difference between ready-made and stlf-styled toys. Being present or participating in the making of playthings is a much more complete experience than the enjoyment of a gift. The making of playthings is a very meaningful sort of play. The fact that children are often devoted to their ugliest playthings, cherishing perhaps a single wheel of a toy car they have been given, testifies to the divergence between child and adult standards.

Aside from standard-size toys, it is advisable to encourage the making of large toys of light materials that correspond to the proportions of the child himself (and that he can get inside of). Neighboring shops can be counted on to provide corrugated cardboard, wooden strips, sponges, styrofoam, and boxes of various colors, shapes, and sizes. Large playthings can be drawn on and colored with paint and brush, magic marker, etc.

The Yard of the Daycare Center

The play yard of the center should reflect the age level of its users, who in this case are under 7 years old. According to Jean Chateau, goal-oriented games (in which the child gets to know the world primarily through the senses, familiarizing himself with objects) last from the first year to the beginning of the third. Pleasure games (in which the child gains sensory satisfaction -- sound, touch, movement) begin somewhat later than goal-oriented games and cease somewhat earlier. Novelty games (exploration of one´s own and others´ bodies, playing with sand and animals) are of even shorter duration: they emerge in the second year of life and generally do not extend into the third. Games of destruction (self-expression through disorder, knocking things down, spilling, breakage) very nearly coincide with the goal-oriented games of the first three years of childhood and are completely normal, providing the child outgrows them.

Building games, games of ´let´s pretend´ and those Chateau terms ´games with arbitrary rules´ last throughout childhood. Thus, these are the games that daycare centers -- particularly those encompassing open spaces -- should foster.

Building games begin somewhat later than games of destruction (between the first and second year), but cease by age thirte when greater maturity and working habits take over.

It is worthy of note that ṕretend´ games (along with building games) are the earliest form of games with rules and emerge in the first year of life. They begin with the imitation of the immediate social environment, from the family to the people the child meets from time to time (sales clerk, doctor, etc.) Such games continue up tofours years of age. Children return to mimicry at school age, but imitation at that age has a completely different meaning and is much more indirect, as they adapt space to conform to their activities.

Although they are most evident in particular periods of childhood, none of the cited types of play disappears suddenly: over time they begin to overlap. Thus no attempt should be made to forestall these games if they emerge at different (´wrong´) age levels.

Aside from his profession, the designer should also have a thorough knowledge of the games that children play at particular age levels.

The courtyard layout should reflect consideration of the child´s inexperience and the child´s need for diverse and extensive experiences at this age. Of the open spaces in the residential complex, usually only the daycare center yard is fenced-in (i.e. supervised) and clearly set aside for a particular age category.

If playground fixtures (swings, seesaws, slides) are already available in the neighborhood playground, where they are accessible to all residents, there is no purpose in providing them in large number in the yard of the daycare center.

It seems to us that the staff of daycare centers make up for the lack of facilities in the yard by channeling the children into overtly social games with defined rules. These games begin with school attendance. If these games are introduced too early and are played too often, then the preschooler is pointed toward the imitation of something which makes sense only when the child is mature enough to understand its meaning and incorporate it in his behavior.

The difference between games with defined rules and building games is similar to the difference between free movement and gymnastics. The child must first acquire agility and physical skill, and then coordination and adaptation to social communication.

Since we consider building games to be extraordinarily important, and since they are least in evidence on our playgrounds, we shall here cite several important advantages of building games. Building is an excellent means of perceiving the relation between ends and means, and the methods to bridge the two.

-- Building engages all the senses and requires thought to integrate various elements into a meaningful whole.

-- Building games and games with rules require the combined effort of children towards a common goal.

-- The combining of effort requires the development of self-discipline. This is how children learn cooperation. Attention is directed to the object which has become a joint goal, and so the success of the individual depends on the success of the entire group, and vice versa: this is the best means of socialization.

-- In playing building games children feel that their work has a degree of continuity, and is thus not composed of a series of separate, disconnected sequences.

-- Building stimulates the imagination. And children´s mental development to a large extend depends on the use of this faculty. Building occupies attention in a more comprehensive way than any other kind of play.

-- This does not mean that building should become the only activitiy children engage in when they want to play. If this is the case, playing would soon become boring and monotonous. Other sorts of playgrounds are just as necessary as building (´adventure´) playgrounds. Only a free choice of activity can prevent any sort of play -- including creative play-- from becoming boring.

There is no justification for the complete absence of water in the courtyard play facilities. This might be a suitable place for showers, fountains, and sprinklers, all of which offer great pleasure to children even beyond the age of two to three when pleasure games are most prevalent. It is advisable for designers of daycare centers not to forget water in their plans for the courtyard.

The ground relief and ground covering are important elements that can enrich the experience of play. In a controlled environment, such as the courtyard of the daycare center, sodded areas of ground can be put to rational and planned use. Grass protects from injury in falling, a very important feature for children´s playgrounds. In the recommendations for "Playgrounds" we spoke of the necessity of contouring the ground.

The designer should not forget to provide greenery in open spaces. Vegetation can perform a number of functions in the layout of the courtyard (shade, concealment, etc.) and adds a note of variety: low vs. high, deciduous vs. evergreen, indoor vs. outdoor, planters vs. ground plantings that bud, bloom, and bear fruit at differing times.

Animals are another requirement in places where children congregate. Children are usually unable to keep their own animals at home, and the devotion that we have seen children show toward dogs, cats, rabbits, birds, chickens, etc., testifies to the benefits of the presence of animals in daycare centers.

Designers should give careful study to such courtyard furnishings as simple tables and chairs of natural materials and should design them to serve not only their basic purposes, but those other purposes that children may give them (barrier, hideaway etc.).

It is advisable for the designer to work in cooperation with the staff of the daycare center whenever possible in designing the yard.

The layout of part of the yard should be turned over completely to the staff of the center -- who are perhaps less well versed in architecture, but are likely better acquainted with children. A degree of undefined purpose in the layout leaves open the possibility for part of the yard to be developed over time, in the full view and with the help of children, however limited this assistance may be.

A part of the yard should be set aside for growing flowers and vegetables by children. Beds can be laid out, each to be tended by a small group of children. Tending a garden is something that makes children very happy and engenders a love of growing things, a most important consideration in an urban life style.

SUPPLEMENT: RESEARCH INSTRUMENTS

1. Parents´ Questionnaire

The parents´ questionnaire had to resolve several problems which arose from the very nature of the information we sought.

(1) The parents´ questionnaire had to gather integral information on matters which the other instruments deal with in part. This made for a very long questionnaire.

(2) The information on children provided by the parents´ questionnaire was indirect. (Parents were not to speak about themselves -- or at least not primarily about themselves -- but about their children who were not able to provide the same data.)

(3) Because of the length of the questionnaire (number of questions) the number of open-ended questions had to be reduced to a minimum. However, in their answers the parents offered additional explanations not encompassed by the standardized alternatives (something we noticed in the pretest). Accordingly, the interviewers were instructed to note such explanations alongside the questions in the margin of the questionnaire. This lengthened the parents´ questionnaire even more.

(4) This created a new problem. The decision to make a marginal note or not is a subjective one: questions for which there is additional explanation vary from

respondent to respondent and so it was not possible to give the interviewers instructions sufficiently detailed to encompass all eventualities and reduce the influence of the interviewers´ subjectivity.

(5) The questionnaire investigated parents´ views on the upbringing of children, parental leniency, preferences in games, etc. Each of these problems could have constituted a research topic in itself, and our questionnaire had to be limited to a very restricted number of questions on each individual problem, given the length of the questionnaire in toto. This somewhat reduced the probability that we would obtain reliable answers to these questions.

(6) Since all the questions had to be quided questions and since we wanted the answers as exact as possible, the number of alternative answers (modalities) for some questions had to be very high. All the drawbacks of a large number of alternatives showed up in the tabulation of the data: the sample was often divided up into such small segments that it is very difficult to draw conclusions.

(7) The questionnaire encompassed the following groups of problems:

-- apartment
-- playground,
-- play area

-- data on apartment space and furnishings.

After completing the final version of the questionnaire, the members of the central research team conducted a pretest which was helpful in correcting the questionnaire and preparing instructions for interviewers.

Names and addresses for respondents were obtained from the Belgrade, Sarajevo, and Titovo Užice City Bureaus of Statistics.

The questionnaire was administered by 40 interviewers: students of psychology, sociology, and architecture.

Four days before the visit of the interviewers, each of the families was sent a letter explaining that they had been chosen for our sample and outlining the objectives of the investigation. If parents were unwilling or unable to talk with our interviewers, they were asked to contact the chief investigator by letter or telephone. Few conversations were cancelled: parents generally telephoned us to inform us that they were interested in cooperating and to ask about the subject of the investigation in detail.

The questionnaire was administered in the three cities in May of 1972. It lasted from 4 to 5 days in each city.

The interview lasted 30 to 40 minutes. The interviewers obtained thorough instructions about each question and the manner in which it was to be presented.

1.1. Instructions to Interviewers

The interview with parents was directed, so much depended on the skill of the interviewers. Thus we issued the following instructions.

(1) One obtains much better responses by posing questions in an informal manner -- in conversation -- rather than by reading questions word-by-word from the questionnaire. It is necessary to memorize the content and order of appearance of the questions on the questionnaire. This permits one to establish a more casual relationship in posing questions and facilitates orientation in deciding whether or not to proceed to the next question or group of questions.

(2) In addressing parents, whenever possible one should emphasize the phrase "in your opinion," or "your position is...," because this especially involves the respondent and increases his motivation to answer the question adequately.

(3) If the answer to the previous question is related to possible answers to one of the following ones, it is wise to use the following formulation: "You just said that

..., and so what do you think about that in this case...?" Thus one avoids inordinate discontinuity in the conversation, while the greater spontaneity reduces the impression that the respondent is being interrogated.

(4) Sometimes in answering one question respondents answer several following ones. In that case the questions the respondent has already answered should not be repeated, and his previous answers should be duly recorded in the proper place.

(5) Given the fact that the subject at issue is the respondent's child, respondents often get off the topic and talk about things not covered by the question. Sometimes the information obtained is just as useful as that obtained by direct responses to the question. Thus the answers which the interviewer considers interesting should be recorded on the upper or lower margin of the questionnaire. If the interviewer does not get around to writing this all down while the respondent is answering, he should return to the questions requiring supplementary attention immediately after the conslusion of the interview, at which time he may make his additions.

(6) The respondents sometimes give unique answers that are valuable to the study because of their content or because of the distinctive, colorful, or witty manner of expression. These answers should be recorded as faithfully as possible in the lower or upper margins. By way of illus-

tration, during the pretest one of the respondents stated: "This high rise is a whole village -- 121 apartments. But a village at least has a magistrate, and this village has none -- everyone is out for himself; no one cares about anything." We wrote down this answer because it represents a simple metaphor that depicts adequately the respondent's mood and his attitude toward the lack of organization in a densely occupied building. Answers of this kind lend the study vitality and directness.

(7) Questions with more than five alternative answers are boring for the respondent, and so one should either show him the questionnaire (making it easier for him to decide among the alternatives), or one should not mention the alternatives at all, categorizing his unprompted answer in the closest given category. The members of the of the central research team believe the second method is better.

(8) If the respondent really cannot make up his mind, one should not attempt to force an answer. It is better to write "it depends," or something similar.

(9) If respondents express extreme suspicion about one of the given alternatives, this should be written down. For instance, in the pretest several respondents expressed disbelief that any sort of supervision of children on the playground was possible -- except in the case of a parents' supervision of his own child.

(10) Sometimes both parents respond to interviewers' questions. In the eventualit that their answers to some questions differ to such a degree that the interviewer senses that there is essential disagreement crucial to the relationship to the child, this should be noted in the margin along with an explanation of how their positions differ.

(11) Several times in the pretest we encountered statements by parents that the child spends weekdays with the grandmother and is with them only on the weekend. This should always be noted in the margins beside the appropriate question (no. 75) and it should be noted precisely where the child spends the most time if not (as one might expect) in his parents' apartment.

1.2. Apartment Inventory -- Supplement to Instrument One

The data for this inventory was gathered at the same time that parents were interviewed. A supplement to the parents' questionnaire, this instrument was printed on colored paper.

The inventory was limited to the apartments' physical characteristics relevant to our investigation.

2. Children's Questionnaire

The questions on the children's questionnaires were open-ended.

(1) We believe that children -- particularly in a situation requering speedy completion of a questionnaire -- are easily influenced and would rather repeat a suggested answer (if questions are guided) than attempt to think independently. We wanted to obtain the most spontaneous and true answers possible, and so we did without guided questions.

(2) In order to code and process these questionnaires, we had to set up classification schemes for the answers in order to place them in usable categories. We made the classification after the psychologist and sociologist of the central research team had leafed through 100 completed questionnaires (50 for the younger and 50 for the older age group).

Coders then classified all the answers from the questionnaires according to these schemes. In classifying the answers they made note of all the answers that could not be fit into a particular scheme. Whenever more than 5% of children gave an answer that had not previously existed as a category, the scheme was corrected by the inclusion of a new category.

(3) In the first phase of data processing we asked the computer operators for simple frequencies -- broken down by residential complex -- for all the questions on the childrens´ questionnaire and the apartment inventory.

After we obtained simple frequencies to test the validity of the research hypotheses, the existence of correlations, and the intensity of phenomena, and after review by all the members of the research team, we began the formulation of a definitive tabulation plan, not only for information from a single instrument but also for information collated from all three instruments of the first phase of the investigation.

3. Health Inventory (Instrument No. 3)

Through our health inventory we obtained the following data for each of the 1200 children in the sample:

(1) school performance (as a generalized indicator of the child´s capability)[1]

(2) height and weight as indices of physical development

(3) obesity as a special parameter relating to socialization and the mental state (behavior) of the child.

(4) frequency of visits to physicians during one year as an indicator of the child´s resistance and possible excessive concern on the part of parents. (This was determined

for each individual case, since data was obtained from doctors who personally know each of their patients.)

(5) sensory impairments (hearing and vision)

(6) motor impairments (locomotor and those of neurological origin

(7) mental disturbances and behavior disturbances

(8) data on family type and pathological deviations in the family environment.

All data on disturbances include a description of the disturbance, when it was first established, and the current status.

Data was gathered by Dr. Božidar Vlajić, a pediatrician and a member of the central research team, and two pediatricians and five nurses from each of the three cities (a total of 6 doctors and 15 nurses). Field work began in mid-April and concluded in late May, 1973.

4. Children's Daily Activity Cycles

There are only theoretical assumptions about children's needs for certain categories of open and enclosed space, and there is a lack of empirical evidence about the intensity of use of existingspatial units in the apartment and outside the apartment.

Thus we decided to investigate children's daily activity cycles gathering data on:

(1) activities the child engages in during the day,

(2) the place where the child engages in these,

(3) the time the child spends performing each of these.

We worked out two versions of the instrument. The first version was visually very attractive, collecting data on play times and play places, work, study, meals, and sleep. There was also a graph on which parents could enter the place and time in which they were together with their child during the day. This version of the instrument was colorful and visually attractive. But it was not easily understandable and was difficult to fill out. The results of the pretest (pretest of the first version of the instrument) indicated that it was too complicated, and so we attempted to find a solution that was clear and simple both in form and content. Thus in the second and final version of the instrument we reduced the number of activities to play and study, reduced the list of places where the child spends time, and eliminated the graph for parents. This is the way we drew up Instrument 4, "Daily Activity Cycles," which yielded the following data:

-- When -- at what time -- children engage in their most frequent activities (play and learning),

-- how long these activities usually last when the child engages in them,

-- where these activities take place (in which part of the apartment or in what area outside the apartment),

-- the weather conditions each day the form was filled out,
-- the frequency of use of enclosed and open space (amount of time spend in them).

The forms contained two column headings -- "play" and "study" -- under which data was entered about the time and place of these activities. Besides entering the date, respondents noted weather conditions that day, underlining one of the given alternatives.

The form was filled out for five successive days, from Thursday to Tuesday. In order to permit reliable conclusions on children's use of space, three work days and a weekend were included. In order to make allowances for possible differences in the course of the week, we took two days at the end and one at the beginning of the week. On the basis of the pretest and consultations with parents we abandoned our intention to prolong the completion of the forms for more than five days. A longer period would have reduced the number of respondents willing to fill out the forms and would have increased the number of *pro forma* -- i.e. in exact -- responses, as the work thus would become a great, perhaps boring and impersonal obligation.[2]

In order to make the investigation as a whole attractive, to motivate the respondents, and partially compensate for their efforts, we offered them an organized presentation in thanks for their cooperation.

Letters with forms, instructions, and detailed explanations for the parents were sent to the respondents at the beginning of the week.

We stressed that parents should start keeping the log of activities on a Thursday and indicated that our interviewers would visit the parents on the following day, Friday, to assist them in resolving possible problems with the log. Ten interviewers in each complex (60 interviewers in all) were sent out.

The chief purpose of the interviewers' visit was to serve as a discreet reminder to the parents of their obligation. (Our fears proved to be justified: nearly one fifth of the respondents still had not begun to fill out the form on the second day of the five-day period.)

Certain difficulties emerged in collecting data on daily activity cycles.

(1) Since the "Daily Activity Cycles" instrument was administered a year after the parents' questionnaire, a number of families in our sample had moved since the beginning of the investigation. These respondents thus permanently ceased to figure in our lists for further investigation.

(2) Some of the children passed the upper age limit set for inclusion in the investigation (14 years of age). This

proved to be a problem for the study, as 14 is the year for enrollment in secondary school, and such schools are generally located outside the residential complexes we studied.

(3) A number of parents refused to continue to cooperate -- either when the interviewers came on the second day of the completion of the forms or when the interviewers came to gather the completed forms on the last day.

(4) Finally, in gathering data on winter daily activities a serious oversight occurred: in explanations about filling out the questionnaire, the research team neglected to empahsize to the parents of more than one child which child this section of the investigation related to. We were sure that parents would remember which child they had given information about in the parents' questionnaire a year previously. A number of parents (more than 20) completely misunderstood the matter, thinking that they were not again concerned with the same child (even though the instrument was quite different from the previous one). Consequently they diligently filled out the forms -- for the child's brother or sister.

Other difficulties concerned the manner in which the questionnaire was filled out.

__ There are a number of built-in difficulties in filling out a log for someone else (as when a parent does so for his child). Most of the parents of preschoolers are employed. They spend only a small part of the day with their children. Persons who care for the child and remain home with him are often either uninterested or inadquately educated to keep this sort of log properly.

-- The youngest age group is very active, and so it is often difficult to specify the place in which the child spends ´the most time,´ which was one of the tasks of our questionnaire.

-- The older age group, who filled out these logs themselves, is typically resistant to any obligation imposed on them, and these questionnaires were not attractive enough to maintain their attention during the five-day period. Furthermore, children of this age avoid all attempts at supervision. Thus it is to be expected that some information was held back or falsified.

-- Activity is never registered at the moment it occurs but later, usually in the evening, and is often put off to the next morning or even the last day, when an attempt is made to fill out the form for all five days.

The result of this is a paucity of information: only the most ordinary activities are cited, those which were remembered through inertia.

Our final figures for daily activity cycles were as follows:

	Belgrade	Sarajevo	T. Užice
Total logs completed	239	258	315
Total usable logs	275	215	262

From the total usable logs 100 were selected from each residential complex (200 per city). Each age level was represented by 33 (34) children, symmetrically distributed by sex.

In drawing the reduced, selected sample of 600 respondents (half the original), we eliminated:

1. all questionnaires not completely filled out,
2. all questionnaires filled out for less than five days,
3. all questionnaires giving data on the wrong child (not about the child reported on in the parents´ questionnaire,
4. all questionnaires in which the first day was filled out and in which the words "the same" were entered for all other days,
5. all questionnaires noting that the child was ill these days.

5. Building Inventory

The building inventory encompassed 240 street addresses (buildings) in six residential complexes within the three research cities.

We did not fill out building inventories for the entire sample of 240 buildings, but only for the buildings with more than five respondents (families). There were 109 such buildings (street addresses) in the three cities.

The apartment inventory was in two parts.

(a) Most of the complexes (aside from those in Titovo Užice) were comprised of standardized buildings, with little variation among the buildings. This led us to devise inventories of general data about each of the building types encountered (Instrument 5 A).

(b) Specific data, data which varied from case to case (from building to building) was entered for each of the 109 street addresses with more than 5 respondent families (Instrument 5 B).

The largest number of general inventories dealt with the Titovo Užice buildings (17 in Kurlagino Raskršće and 18 in Centar). This may be explained by the fact that the architectural sample in this city was the most varied. In the last decade a large number of apartment towers have been built here, as the town planners believe that the compact site plan of such buildings is best suited to the sharply cut terrain. Furthermore, the panoramic views from the upper stories of such towers somewhat compensates for the negative features of the location of most of the town in a ravine.

An equal number of general inventories were completed for Belgrade and Sarajevo (16 in each of the two cities). This may be explained by the similarity of the spatial configuration of Banovo Brdo and Čengić Vila on the one hand, and between Sumice and Koševo on the other. Another factor is the equal degree of building standardization in the four building complexes.

The ratio of general to specific inventories in Belgrade and Sarajevo is approximately 1:2, while the ratio is lower in Titovo Užice (1:1.25). This indicates that there is less building standardization in the latter city than in the former two. A great building variety and a lively ground configuration are two features that are immediately apparent to the visitor to Titovo Užice.

6. Questionnaires for Daycare Centers

Data for the section of the study on daycare centers were gathered by means of the following instruments:

-- questionnaire for teachers with over 5 years´ experience (Instrument 6),

-- questionnaire for daycare center directors (Instrument 7),

-- building inventory (Instrument 8),

-- notes of central research team members.

The cited instruments were used to gather data on the operation of the centers, buildings, facilities and their use, the open spaces attached to the centers, and the interior and exterior furnishings. We also gathered the comments of employees on the functionality of the structures and the quality of furnishings, and the degree to which furnishings are suited to the age level and sex of the children. We asked staff for information on the various activities of the children, their behavior their adjustment to the center's program, recommended sizes of children's groups and of the center as a whole, and about cooperation between teachers and parents.

The centers studied were selected by the following criteria: they must belong spatially and functionally to the complexes encompassed by the study, and most of the children enrolled must be from the sampled complexes.

The data collection -- inventory, interviews, and observations was carried out by members of the central research team (architect, sociologist, and psychologist), who developed information not only through thecited instruments but also by means of a detailed notebook of personal observations.

7. On-site Observations of Playgrounds and Play Areas

Observations were made in summer and winter for a period of three days in two playgrounds in each of the three cities.

We chose to observe play areas located very close to the homes of our respondents.

The number of playgrounds with play fixtures was relatively small in our cities, and so there was no sense in insisting on observation of such areas exclusively.

Furthermore, we were interested in spaces where children play, regardless of whether they were formal playgrounds or spontaneously chosen play places without play fixtures and special design treatment.

Observations of each of the locations selected were made by three observers (a sociologist, psychologist, and architect). The sociologist and psychologist noted the behavior of the children, while the architect noted the specifications of the playground/play area. The same team of observers worked in Belgrade and Titovo Užice, while a team from Sarajevo University (students of sociology, psychology, and architecture) made the observations in that city.

There were a total of six playgrounds - play areas observed, two in each of the complexes investigated.

Each of the observers used a playground observation form for recording the following types of data:

-- physical characteristics of the terrain,
-- playground equipment,
-- number of children on the playground,
-- number of adults on the playground,
-- types of games being played on the playground,
-- aggressive behavior on the playground,
-- personal observations.

The observers were given the following instructions.

-- Each observation was to be made for three hours in the morning and three hours in the afternoon in the course of three days.
-- Observation was to be made regardless of weather conditions

NOTES

Introduction.

[1] We have intentionally incorporated the entire Introduction of the project design without any additions or corrections so that the reader can judge whether our assumptions have been borne out and whether our preliminary hypotheses have been confirmed by the progress and conclusions of the investigation.

[2] Working hypotheses require general research experience and previous knowledge of the research field. At the outset of this task our research team had neither the one nor the other.

Part One: Methodology

[1] Contrary to usual procedure we have decided to describe our sample at the beginning of the study since this description will explain certain very important elements which appear throughout the entire study and without which it would be difficult to follow the argument.

[2] We utilized the following question to obtain a general pictur of the ambience of a given residential complex: "Are you satisfied with the appearance of the section of town where you live ?"

More than nine tenths of the respondents answered in the affirmative, which suggests that there are no areas in their town which cast a negative light on the development where they live.

Among the 9.2% of the respondents that were dissatisfied, the residents of the lower-standard complex predominated

7.9:1.5% in Belgrade, 20.5:0% in Sarajevo, and 17.1:8.6% in Titovo Užice). The greatest difference in the percentage of dissatisfied and satisfied is in Sarajevo: in the upper-standard development Koševo there was not a single instance of dissatisfaction noted. The great difference in the responses of the Sarajevo residents is partly accounted for by the position of the two areas within the city: Čengić Vila in the Miljacka Valley is exposed to great pollution, while Koševo is located on slopes north of the central valley.

The investigators are under the impression that people understand ´nice´ or ´pleasant´ appearance to refer to the composition, design, and maintenance of open spaces rather than the esthetic value of the architecture in a residential complex. Thus these evaluations of our respondents may be viewed as appraisals of the suitability of the open spaces for children´s play. As will be seen in the section on play outside the home, these appraisals are in large measure confirmed by the replies of the children, the observations of the interviewers, and the impressions of the investigators on the site.

Part Two: Apartment Buildings

[1] Independently of the interviewers, the investigators on several occasions visited the study sites and on each occasion kept a kind of personal diary.

[2] These passageways are appropriate only in the case of linear buildings of great length, of which there were very few in our sample.

[3] For the purposes of this study we have tentatively labelled all entrances hallways if they are narrower than 1.4 m, i.e., less than the width of a normal apartment foyer.

[4] The measure of degree of illumination was taken by a photo light meter. Illumination was considered poor with the following combination of factors: an aperture of f.6 and an exposure of 25-30 at noon on a sunny day.

[5] Measured from the floor of the stairway landing.

[6] There are thirty-five buildings (addresses) with artificially lit stairways, representing 52.3% of the total of 67 buildings in the sample.

[7] In all the buildings with overhead lighting of the stairwell (located in the center of the building) observers noted flowerpots beside the entrances to the apartments on the top floor. Obviously, whenever people have a chance they try to soften an unnatural environment with natural elements, to convert space experienced as empty into a more cheerful environment.

[8] Physical movement is an activity requiring no partner, while human communication presupposes exchange, above all of information. In our opinion, the architect´s skill consists in not leaving theuser to fend for himself in the public areas of the building: the architect must arrange space in such a way that movement is accompanied by communication, for pedestrian traffic by its very nature favors communication.

[9] 500 (41.6% of 1201) -- total number of respondents in buildings with roof terraces.

[10] The opinions cited in Graph 12 will be discussed more fully in Part Five, subsection 11, "Concepts of Best Play Areas."

11 We asked all parents this question, regardless of their child's age, since we wanted to bet a better idea of how buildings are used.

12 Most of the replies of children with a clubroom reveal a kind of consiratorial pride. Evidently these are the years when children take pleasure in more formal organization which is more than mere association and resembles adult organization.

Part Three: Apartment

1 **Trans**: Kitchens are not included in the room count.

2 If it is impossible to provide every family member with privacy by providing that person with their own room, provisional privacy, or some sort of separation of irreconcilable general interests may be achieved by the organization of spatial zoning in the living room. We found some sort of functional zoning of the living room in only 14% of the cases. A division of the dining area from the living area can diminish the discrepancy between the divergent interests of adults and child, particularly because -- according to parents -- children tend to spend their time in the living room and kitchen (a topic to be discussed below).

3 We discovered in processing our data a number of tenants of efficiencies and one-room apartments answered "yes" to the question, "Does your child have his own room ?" On the other hand, some of the parents with more than one child -- because of the unclear wording of the question -- thought they were being asked whether or not the interviewee child had a room of his own, rather than whether there was

a room used only by children, regardless of how many there were. The number of such cases, however, proved to be insignificant.

Part Four: Immediate Surroundings of the Building

1 Later, in the section on the playground, there is an examination of the relationship between the buildings forming the open space on which the playground is located and the playground itself. We deemed the relationship to be unfavorable if a traffic artery stood in the path of children headed for the playground, as an attractive objective reduces cautiousness.

2 We considered a setback of ten child-size steps the minimal distance for a child to calm down after running from the entrance of a multifamily apartment building.

3 Despite the fact that the question was not structured, a large number of older school-age children (11 to 14) avoided answering it. Abstention in this case is eloquent -- one supposes that they are withholding information on this truly delicate matter.

4 A cart on roller skate wheels. Children usually make them themselves out of boards.

5 The reader may wish to compare figures on conflict between children and neighbors with earlier figures on conflicts between children and grown-ups in the home.

6 The investigators intentionally formulated the question so that behavior of children remained a broad concept, encompassing noise from the family apartment and disturb-

ances in the areas outside the apartment, where one supposes that children spend a great deal of time and are simultaneously less cautious, and where others outside the immediate family are not obliged to be tolerant of children.

[7] S. Lazić, "Psihološki aspekti korišćenja slobodnih prostora" (Psychological Aspects of Open-Space Usage), Yugoslav Institute for Town Planning and Housing, 1973.

[8] As long as there is a parent in the vicinity, the child is indifferent to his own location. When there is no parent, the child retreats toward the building, a familiar structure that affords him an escape from the world.

[9] According to the rules of ownership, there is no intermediate category between private and public. Visual privacy, however, may be increased or reduced by the way in which the architect works out his design.

[10] Earlier, in the section on apartments, we established that the parents in ground-floor apartments are more apt to require that their children lock the front door when the children are at home alone and more frequently check up on the children by telephone. This leads to the conclusion that there is a special category of apartment-complex residents -- the worried ground-floor tenant. This is just our impression, but it might be a useful starting point for further investigation. If the concern of the ground-floor resident is in fact greater, it must inevitably be transferred to his child, and if there are no children, then this concern must necessarily be reflected in an increased aggressivity toward other people's children.

Part Five: Open Play Spaces

1 Although the most common situation was that children played around the building entrance in covered passages, and were most in evidence there, these spaces were not considered for observation since they are in essence most distant from the spatial pattern of a planned playground.

2 Children at Play

3 Espaces verts, editions CRU, 169.

4 Most European recommendations for designing children's play areas prescribe the spatial isolation of swings so as to discourage children from puttering around near them. This has not been followed in any of the playgrounds which have swings (Centar, Koševo, Šumice, Banovo Brdo).

5 We will comment here on the ratio between natural ground cover (earth, sand, grass) and artificial coverings (concrete, asphalt, cinders) i.e., the amount of each present in the playgrounds and the areas around them.

6 There will be more mention of shelteredness in the section on secret places.

7 The questions were not formulated as categories in advance: only after obtaining the responses were categories set up. These answers then are all the more valid, for they are spontaneous, without a given, set formula.

8 The commentaries on Table 8 concern percentages of girls as a category by themselves and the percentages of boys as a category. Comparison of these two categories somewhat alters the picture, for at this age level there are somewhat more girls than boys.

Part Six: Daycare Centers

1 During the field research period in Titovo Užice there was only one daycare center serving the whole town.

Part Seven: Parent-Child Relations

1 This is the complex which has the largest number of children reporting that they do not like to stay home alone (Table 7).

2 The same residential complex leads in the number of children left home alone during the day (Table 3).

3 Perhaps it would have been better if we had asked only those children who were met at school. But this was technically impossible because we did not have the individual answers on this point in advance. In any case, a near majority of children reported being picked up.

4 Naturally, we exclude the time that the child spends alone, counting only the time the child spends with someone.

5 See the discussion of children left alone during the day (section on fears and the apartment).

6 This is an indicator which provides support for the conclusion that new residential complexes fail to meet the needs and aspirations of their residents and do not foster a sense of allegiance to the neighborhood, but this study is not an investigation of the feelings of adults other than those involved in relationships with children and the use of space by children.

Part Eight: Health Factors

1 During the period of field investigation when the data cited in the health inventory was collected, our sample decreased significantly -- by one third. As the oldest children crossed the upper age limit of 14, our sample fell from 1200 to 849 children.

Supplement: Research Instruments

1 Our sample is not sufficiently representative to draw conclusions about physically or mentally disabled children, because the sample includes only those children whose health permits school attendance. The sample thus excludes pathological.cases.

2 The forms that were filled out confirmed this assumption. About twenty respondents were dropped from the sample, because even though the forms concerned only five days, the next-to-last and most often the last forms were not filled out.

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